





ENGRAVED BY J. SARTAIN.—FROM A LACUERRETYPE

J. I. Schonwald

THE CHILD.

A TREATISE

ON THE DIAGNOSIS AND TREATMENT OF THE DISEASES

OF

CHILDREN,

ACCORDING TO THE

SIMPLE LAWS OF NATURE, WITHOUT MEDICAMENTS;

AND UPON THE

BIRTH, NURSING, ATTENDANCE AND EDUCATION
OF CHILDREN, AS WELL AS THE MOST FRE-
QUENT DISEASES FROM THEIR VERY
INFANCY TO THE PERIOD
OF PUBERTY.

Illustrated for the mass by a description of numerous cases, gathered
DURING A PRACTICE OF 22 YEARS.

A BOOK FOR PARENTS.

BY

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P R E F A C E.

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To the foundation of an edifice, if it is to endure, our particular attention should be directed; this foundation must be laid deeper, must be scrutinized more carefully, the more complicated the construction, and the more pernicious the influences to which it is to be exposed.

But where shall we find an edifice, more noble in its structure, but more exposed to injurious influences than the human body. Although undoubtedly created by the hand of providence for the accomplishment of the highest hopes, although indisputably the noblest formation of the visible world, there are notwithstanding thousands of obstacles to its development, its physical growth, from its first existence, from the moment of impregnation. Too often the child inherits from its parents, in its very germ, a malady, which for years they have tried in vain to expel from their own system, by medical assistance and by medicinal springs. Even from the grand-parents, maladies will descend upon the grandchildren, which often produce the most disastrous consequences.

The most numerous evils, however, which threaten the child, are those, which befall it at, and after its entrance into this world, and the very hot-bed of which is the nursery-room, because mothers, in their ignorance, are afraid to avail themselves of really salutary means.

These important observations which must deeply affect our conscience, have induced me to communicate from my long practice, what will be found in the following pages. I trust that the book will be useful in the nursery, and if a mother's blessing rewards my labors, I shall consider myself a thousand fold repaid, and be induced to hasten the publication of my large work, which has occupied me for the last ten years.

THE AUTHOR.

T O

MRS. HENRIETTA W. REID,

**Lady of His Excellency, the Governor of North
Carolina.**

MADAM:—

PURE Reason and Religion teach us, that every human being, but particularly children, are under the care of a guardian spirit or guardian angel.

Only when man, who, by an impenetrable decree, is allowed to act according to his own free will upon this earth, resists this protecting spirit, either through a misguided understanding, or through ill-will, the benevolent influence of the spirit becomes paralyzed—powerless. Oh! from how many parents must not the guardian spirit have torn himself away, weeping for the poor children, whose fate he could no longer avert, and accusing the parents for having marr'd their sacred destiny.

For the honor of mankind, we must suppose, that generally, it is the misguided understanding, which, if it does not deprive the child entirely of this heavenly protection upon earth, does not allow it to display itself in its full vigor, until prejudice, old customs and ignorance have left nothing of the poor tortured creature, but the immortal part, which is to be borne to the eternal father. We say tortured creature, and with right, when we consider the untold sufferings caused by ignorance, often by art, which attack the life of the little being, whose painful, plaintive sounds we do not understand.

Particularly, when we consider, naked first infancy, exposed to these sufferings, does it require, besides the guardian spirit, which Providence has appointed for it, a guardian angel upon this earth—

and where is there a mother more worthy of this title than you, honored Madam, whose appearance and whose deeds upon this earth in general, and in the circle of your own family, resemble those of a being from a higher sphere, watching with anxious, trembling, never-tiring care, and with the omnipotence of maternal affection during protracted sufferings, at the sick bed, over the dear life of your beloved off-spring? In the name of this trembling, loving maternal affection, for which there is no sacrifice too great, to seize what is right, what is true and what is best, and to apply it as a means to remove the evil, with confidence, I crave the permission to address you, and respectfully to direct your attention to the absolute necessity, of having a single, truthful and natural system of nursing children and of treating their diseases, the most general diffusion of which, is absolutely requisite, if we wish to accomplish the desirable object of diminishing the mortality, and of rearing a new, strong, and blooming race.

Therefore, to you, most honored Madam, the guardian angel of your children, do I most humbly dedicate these pages for the benefit of all children.

THE AUTHOR.

CONTENTS.

	PAGE.
Introduction,	1
Matrimony,	5
Pregnancy,	11
The Midwife,	30
Labor,	37
The Child-bed,	45
The Life of the new-born child from the first moment of its existence,	47
The first care of the Infant,	52
The first Cry,	56
The Suckling of the Child,	57
The Nurse,	65
The Nursery Room,	70
The Bath,	73
Food,	79
Clothing,	87
Exercise,	100
Diseases of Children in general,	105
Aptha or Thrush,	106
Inflammation of the eyes,	108
Tongue-tie,	112
The Tape-worm,	113
Croup,	115
Boils—Furunculus,	130
Ruptures,	132
Small-pox,	134
Abdominal Typhus,	140
Diarrhœa,	141
Suffocation,	143
Inflammatory Fevers,	145
Intermittent Fevers. Fever and Ague,	150
Nervous Fever,	153
Hip Disease,	160
Miliary Fever,	164

	PAGE
Tetter,	169
Enlargement of the Mesenteric Glands,	171
Jaundice,	172
Inflammation of the Throat,	174
Hooping-cough,	178
Convulsions,	181
Itch,	181
Scald-head,	183
Colic, Pain or Spasms in the Bowels,	184
Flatulency,	186
Painter's Colic,	186
Invagination. Intus-susception,	187
Swelling of the Head of the Infant,	191
Sanguineous Tumor of the Head of the Infant,	191
Lymphatic Swellings,	192
History of a Prolapse of the Rectum,	197
Crusta Lactea,	198
Measles,	198
Inflammation of the Ear,	203
Pemphigus,	206
Contusions,	207
Rose rash. Roseola,	208
Erysipelas,	208
Tetanus and Lock-jaw,	211
Scarlet Fever,	213
Self-pollution,	221
Tympany or Wind-dropsy,	221
Over-feeding of Children,	222
Water in the Head,	223
Worm Disease,	226
Wounds,	228
The Chafing of Infants,	231
The Whites,	232
Dropsy,	239
The Bite of a Serpent,	243
Difficult Teething,	244
Final Remarks,	249

INTRODUCTION.

THE new-born infant is without comparison more helpless than the young animal, which, as soon as it escapes from the womb or the egg, is in most cases already provided with a sufficient covering to protect it against many of the exterior impressions; and immediately or a few days or weeks later, can seek its food and by means of that powerful natural desire, called instinct protect its life, and thus free the animal, to which it owes its existence, quickly and for ever from all fostering care. The child on the contrary must be assisted by the mother in the most trifling wants of life, and without her protecting care, in its helpless and distressed condition, could not sustain life for the shortest span of time.

Nature, or to speak more correctly an all-bountiful, all-ruling and all-wise providence has ordained that the child should not be helpless, has created MATERNAL LOVE, that sweet and powerful feeling which changes its own pangs, to joy, provided the offspring thrives; this love we might compare to the all-animating sun, but that the sun sets, disappears, maternal love never.

The actions, which are the holy and necessary result of this love, which are blessed by the Lord, we call a mother's duties, and in their fulfilment lies an indispensible delight for the mother, lies the life and the happiness of the

babe. But even this maternal affection, when misguided, when erring in the selection of the means, can become pernicious to that being, for which the mother would at all times be ready, to shed the last drop of her heart's blood.

Life contains two extreme epochs, which on account of their helplessness, inspire us with pity: the one, the age of the child, the other, that of extreme old age. Both epochs are extremely interesting: with the age of childhood we connect all the hopes of a life, full of blossoms and of fruit; to old age we are attracted by veneration for a passed life of purity, by an unredeemable debt of gratitude for favors bestowed. The child enters the world to unfold its blossoms, to enjoy life and to shower joy and happiness upon others; the old man has spread happiness and joy, and longs for the fountain of life, for his return to God. Childhood is the epoch of the general development of the body and every particular organ, and who has to learn more than the child? What a field for the practice of the eye! It is well known that the child sees only plain surfaces as a painter produces perspective in a picture, and hence the child is constantly catching at objects most remote. How often must not the child be undeceived until it obtains an idea of the relations of space! And this is only one side of this extremely important object. Of him, who in after years, could learn as much as the child learns, and must learn, it might in truth be said that he was a colossus in knowledge, nay, that he was not far from the fountain of knowledge. And are we not called upon to facilitate for the child its mental cultivation by proper attention to its body! In the old man, whose life has been just, the body approaches a mild dissolution, a cheerful return to its original state, as our forefathers were in the habit of saying; in the child the young life strives upwards to the light of heaven

to the splendor of the sun. But do not think that as old men your death will be easy unless judicious care has been taken of you, in your infancy !

It is this care, which is even much more necessary in infancy than in old age, that supports life, fortifies the constitution and promotes the development and cultivation of all bodily and mental capacities, it is as necessary as our food.

The overwhelming importance of care and nursing of the new-born babe, as well during the first months of its entrance into the world, as during the whole time of its organic development, when the slightest impressions affect the delicate creature, and may deprive it of that life which has scarcely commenced, need not be explained to any one, who considers that the organisation of the child has not yet obtained any solidity, that the development and cultivation which is constantly progressing, requires strength, that finally, there exists a constant reciprocal relation between the child and the world into which it has just been introduced. The number of children, which, during the period of development, become the victims of a want of proper attention, is immense ; but the number of those whose life and health is sacrificed to false shame, fashion and vanity, to ignorance, prejudice, a deficient or extravagant maternal care, is unfortunately not less.

There is no doubt, as the child is nursed, the man will grow up. The child, as can be scientifically proved, is more pliable than the young plant, and can be bent in any direction. Of a child properly organised, we may make a hero or a coward, a high pattern of strength or a pitiful specimen of weakness, a being of a higher order or an idiot, not far above the brute. If therefore we consider the helpless condition of the new offspring which fate has entirely entrusted to our fostering care, whose life and thriving it

has confided to our love, if we consider that by a rational care we can save our charge a host of diseases, that we can make his body less susceptible of them, and thus lay the foundation of a long, healthy and happy life, I say if we consider all these things, we have at once admitted the extreme importance of the care and first education of the newborn infant. And should not regular instruction on this subject, be the best dower which a rational mother could bestow upon her grown-up daughter? Would not the babe be saved a deal of sickness and pain, and the mother a world of care and of trouble?

Dr. Stale says, "Only instruct and convince, which I admit is no easy matter, these thousands of mothers, who by over-feeding, pampering, improper clothing, or again by injudicious and excessive attempts at hardening, as well as by dietetic and pedagogic sins, cripple their children and make them sickly, that they are in the wrong, and the corporal defects and diseases in the rising generation will be diminished considerably."

It admits of no doubt, that the care for a human being must begin with the dawn of its existence. Immediately after conception the fostering care of the embryo should commence, first indirectly, through the pregnant mother, then directly.

This first care consists in the regular life of the mother, for from her the embryo, called into organic life, receives the juices from which it distills its own blood, from which again, with astonishing rapidity, develops itself its organic structure. The womb of the mother protects the embryo from inimical exterior influences, but too often it becomes itself the source of dangers which threaten the young life. And the most careful nursing will prove ineffectual when the child inherits already in the germ the disposition of

disease. For whatever the eulogists of the progressive cultivation of the human race may say, it remains incontrovertible, that with the increasing refinement of manners, also luxury, extravagance and debauchery have augmented, and that the strength of man has diminished.

What fathers will young men make, who do not enter upon matrimony until they have spent their youth and strength in all sorts of dissipation? What mothers will girls become who bestow upon their husbands nothing but a sickly body, a wasted soul?

For these reasons I consider it necessary to commence my treatise on the care of children from the moment of their conception, and to preface it by a few words on matrimony.

MATRIMONY.

NATURE teaches us that matrimony is a high, a holy law, for the constant government of mankind, as necessary for the welfare of the body as of the soul; it is the foundation stone of all dignified social relations, it is the keystone of human happiness.

The man, who through his own fault, has not become a participator in this happiness, and who denies its existence, must not seek for an example among lovers, who are full of exaggerated ideas of human bliss, full of overstrained sentimentality; he should look on a well regulated household where man and wife are but one heart and one soul. Even in the lowliest hut, he will be struck by a spirit of cleanliness; though the man be but a common laborer, a desire of hiding, what is offensive, will be apparent; though the woman be but a common drudge, he will find an attempt at ornament and at embellishment.

The creator, it is true, has unequally divided land and wealth, but upon the poorest couple, if they only strive to obtain it, he bestows true happiness through matrimony, and the same happiness he bestows on those in the higher walks of life. But a man may, by the accidental advantage of birth, be lord of the treasures of both the Indies, and yet be a bankrupt when he compares his happiness with the matrimonial happiness of the wood-cutter. But too frequently the wreath of diamonds, rubies and emeralds, presses with a leaden weight upon the marble brow of the high-born lady. But when affluence is added to matrimonial happiness, then, no doubt, the human existence is perfect, and it remains only to be wished that the never failing genius, with the inverted torch, may come late, but come to both at the same time. In short, wedlock of one man with only one woman, generally called monogamy, is a divine institution, and bestows pure and lasting happiness, as well upon the lowly in the poor thatched cottage, as upon the high in the glittering palace. To conjugal love, the fulfilment of the hardest duties becomes easy; the truly loving husband is strong, chaste, strives restlessly, and dares every thing, to make the wife happy. Conjugal love unites two souls into one, and matrimony may be looked upon as a temple, in which burns the eternal lamp of concord and contentment, which lights us over into immortality into the kingdom of God.

From a pure faithful wedded life we may look for children, strong in body as in mind, whose entrance into the world is a prognostication to the parents of a happy future, of new bliss.

Alas! the East has produced polygamy, and with it the degradation of women to slavery, to be looked upon as chattels, which irrational perversion of the natural relation

has brought in its train a number of the worst passions, and most unnatural crimes. And the East suffers severely for this, in the imbecility of the mind and the moody stupor of its nations, under the rule of savage tyranny; whilst the western world, which honors monogamy, advances irresistibly towards a blessed state of moral liberty and mental culture.

Polygamy is a purely animal condition, extinguishing the divine spark in man, and leading to the hellish trade of selling young women as chattels. No holy bond of love attaches there the wife to the husband, who claims only sensual pleasures from the slave, he despises; who, in turn, hates and abhors him.

What can be the result of such compulsory connection? What else but degradation of self and of its offspring!

And with this foul sink of beastly lust and depravity, let us compare the wedded state of the christian. It is a bond consecrated by God, between one man and one woman, which lasts through life, a union founded upon disinterested love, a union of souls which consecrates the flesh, a union which forms the foundation of all true civilization, of all the real success of governments.

Matrimony, which unites the will and the deed of two beings into one, is the strongest barrier against idleness, indolence, effeminacy, and against all the crimes, vices and sufferings which they produce.

What man, in possession of a loving wife, does not feel himself elevated by such bliss, does not feel his sinews grow stronger, his mind enlarge, his courage increase to attend to his calling, whatever that may be, with an ardent, unparalleled zeal, to accomplish his labors with an incessant activity, to perform his duties with the strictest conscientiousness, that he may not only protect from want the wife

whom God has bestowed upon him, but also prepare for her as much honor and temporal happiness as lies in his power?

And the wife, who possesses such a husband, will she not feel that the sphere of her action is in retirement, in her home? Will not all her endeavors be directed to lighten the troubles of her husband, to make his home happy and joyous.

Oh! a marriage between two such beings is a temple of order and concord, of happiness and contentment, is, indeed, a heaven upon earth. They are not only prosperous in their circumstances, but also the children, the offspring of such a marriage, sound in mind and body, grow in virtue and in noble activity, happy themselves, and furthering the happiness of their parents, upon whom rests the blessings of God, until he calls them home, to his eternal kingdom. That this exalted image of a happy state of matrimony is so seldom found in reality, must, by no means, be attributed to the spirit and essence of matrimony, but to the perverted and cruel use which man makes of this divine institution.

Where is the bliss of a harmonic, spiritual, and corporal union to come from, when the serious, holy bond of matrimony is not formed from real heartfelt affection, but as is often the case, for reasons of conveniency, pride, avarice, or other impure motives; how is matrimony to bestow happiness, when the husband seeks it only in sensual gratification and neglects his wife? The great poet says: "For a whole heart a whole life must be given in return." The husband must be animated with religious feelings, must acquire the strength of virtue, and act with cool intelligence, if he wishes to make his wife happy, establish a well regulated house, and rear an exemplary family. But how is he to succeed in this, when, by his conduct, he forfeits the

esteem of his wife, or is, perhaps, thoughtless enough to destroy her mind by irrational tenderness.

The female mind is susceptible of a high degree of culture, and it behooves the husband, who has a real claim to this title, to exert himself, that both the heart and the understanding of the companion, whom he has selected for life, may attain to a higher and higher degree of excellency.

But when the husband is blind or mad enough to see in the wife, not as much a soul, which has been given into his keeping, as merely a body, which belongs to him, when he flatters her vanity, excites her love of dress, draws her into the vortex of company and dissipation, then he removes himself the first pillar of his conjugal happiness, and has to ascribe it to himself, when the edifice crumbles into ruins. Who once has entered upon this career, will soon seek amusements without his wife, from which every father of a family ought to refrain; whilst the wife, for whose peace of mind he is answerable, remains at home, repining at his neglect, or exposed to the temptation to return like for like. When such a thoughtless husband returns home from his orgies and finds defects and faults, he is generally inclined to be severe, whilst the wife, not without reason, retorts with bitter upbraidings.

The consequence of the repetition of such scenes is, that the feelings of the husband and wife become blunted; for convenience sake only, the appearance of affection is preserved; nay, frequently, it changes to hatred? What is to become of the children in such a family. Witnessing the discord, the quarreling, the disputing of their parents, an example is before their eyes which they will not fail to imitate when grown up. The poor children are neglected, left to the care of mercenary servants, or abandoned to

themselves, they are often ruined, both body and soul; the examples of this misfortune are but too common amongst us.

This is the sad picture of conjugal misery, whose unfortunate consequences grow like rank weeds, from whose seeds nothing but withered shoots sprout. These unhappy matrimonial relations exercise an extraordinary influence as well upon the physical as upon the moral development of the descendants. The passions of the parents, where real affection, true delicacy and reciprocal respects are strangers, degenerate into brutal lustfulness, and, perhaps, are gratified when the stomach is overloaded with food, or even in a state of intoxication; thus they exercise, if a conception takes place under such circumstances, as pernicious an influence upon the bodily as upon the mental health of the child. Experience teaches us that such children, which are begotten in gluttony and inebriety, often are brutal, nervous, talentless, and, frequently, idiotic.

But cohabitation, which takes place under such circumstances, has also a deliterious influence upon the constitution of the husband and wife, and the more so, the more frequently they fail in this manner; for the effect upon the digestive organs and the nervous system are very pernicious. Young married people, whose passions are strong towards each other, are apt to forget themselves so far as to weaken themselves by over excitement, and thus become incapable of procreation. The consequence of which is, that they accuse one another, without having an idea of the real cause, which is nothing else but that they indulge too frequently in that enjoyment, by which they hope to accomplish their mutual most ardent wish. And because the prospect of this accomplishment becomes fainter and fainter, they have recourse to so-called "strengthening remedies," but never to the proper ones, namely, moderation. At

last, the physician advises the husband to send his wife, in the summer, to some mineral springs, or to the sea shore, and himself, to go traveling for six months. The advice, given as the last resource, is taken, and behold the couple is happy; the miraculous power of the bath is lauded to the skies, and yet the merit does not belong to the latter, but simply to the abstinence which has been practised for the last six months.

PREGNANCY.

THIS remarkable period of female life begins at the time of conception,* and its duration is generally considered forty weeks, two hundred and eighty days, or ten lunar months, which do not differ much from the calendar months. It must, however, be considered, that the actual monthly interval, between the menses, furnishes the real measure by which to determine the duration of pregnancy, as this interval must have exactly recurred ten times during pregnancy. But this time is not always the same, because the influence of the period of menstruation, of the state of the mind, and of the atmosphere, can easily produce deviations, which may amount to a week or a fortnight. With animals of the domestic kind, the period is sometimes still further prolonged.

The influence of menstruation is such, that frequently not the time of conception, but the last commencement of the monthly courses determines the period of the birth of the

* We shall not enter into further details respecting conception, as our first object is simply to treat of the beneficial and injurious influences upon the physical life of the fœtus. For further information respecting "conception" the reader may refer to "the Anatomical and Physical Dictionary, by Piere" Vol 111. P. 802.

child, so that, when the menses have appeared for the last time, a week or a fortnight before conception, the birth of the child occurs not two hundred and eighty days after the day of conception,† but a week or a fortnight earlier. In this calculation, we have also to attend to the time of the menses, as frequently, particularly during the first period of pregnancy the menses return. During this period an increased determination of blood to the womb and other incidental conditions exist, which, by improper conduct, such as reading, dancing, springing, falling and fright, particularly during the first part of pregnancy, embracing a period of about three months, may cause a miscarriage; weak and sensitive females should therefore avoid the like causes, which however does not mean, that the young woman is to remain continually locked up in her room; on the contrary, according to her constitution, she ought to take more or less active exercise every day, and later, namely, during the second period, which embraces the fourth and fifth months as well as in the third period, that is the sixth and seventh months of pregnancy, until the last month of the fourth period, formed by the eighth, ninth and tenth months, strong persons free from asthma should undertake more active exercise, such as climbing up mountains, driving, dancing, especially the last; which is particularly advisable for robust individuals as contributing to the full development of the fœtus, and to an easy and quick labor. In the same manner as the exercise taken by the mother effects the child, so, and almost still more does the diet of the mother influence the fœtus which obtains its sustenance from the juices of the mother, the quality of which depends

† See the tables in the lying-in Hospital of the Med. Surg. Academy of Vienna.

upon the food she takes. The constant use of pulse and food prepared from flour, with a sedentary life, is apt to induce mesenteric and scrofulous diseases.

In the first period of pregnancy, cohabitation after drinking spirituous liquors, such as, cordials, punch, wine, etc., often causes dropsy of the head, imbecility, and idiotism. Another equally injurious effect is produced upon the foetus, when the friends of the mother, from habit, superstition, or ignorance, make her believe that she cannot pass the time of pregnancy without taking medicine, or still worse that at every congestion, according to the old custom, she must be bled. By these means she only deprives the child in her womb of good juices and substitutes bad ones, and the mother and relations ought not to be astonished if the newborn babe looks weak, miserable and dried-up like a mummy, cries day and night, and afterwards suffers from spasms, convulsions, mesenteric and other diseases; the only cause of all this is their injudicious management.

Pregnancy is no sickness, but a very important state of development of the female body, for, with it, nature commences its greatest work, the formation of a new man. But as this period of development increases the activity of the whole female nature, to a higher degree, and by different influences, calls forth alterations in the female body, which cause frequent changes in their feelings—they are but too easily deceived, and together with those around them, take these phenomena for a disease, which, with proper management, suitable exercise, and fresh air, would mostly pass off, imperceptibly, without any further medical advice or drugs. But no, the physician and the mid-wife must be sent for, medicine must be prescribed and taken for the whole period of pregnancy. And is it astonishing if the poor woman, under all these influences, at last becomes sick

in reality, if her labor is powerless and she cannot be delivered without the assistance of other hands, or even of instruments? Need we be astonished, if such a child, in consequence of the badness or insufficiency of the food which it has received from the mother, and of the drugs with which that food has been mixed, comes into the world weak and sickly. But as certain as this child, under proper care and with wholesome milk, notwithstanding the sickly condition caused by the bad juices of the mother, would improve in a short time and recover entirely, so certain will it become more and more sickly, and at last perish entirely, notwithstanding all the trouble taken to save it, if its looks and pitiful cries induce those, who are present, through medicine, strengthening baths, and washing, to torment the poor creature, which is not able to tell its suffering. Unfortunately there is always some nurse, midwife, grandmother, or grandaunt, at hand, to administer to the poor little sufferer. For scarcely has the new-comer announced his entrance into the world by some peculiar cry, when one of these persons appears with some decoction, mostly of tea, in order to free the child of its supposed pains, nay, we see but too frequently, that in nursery rooms such a decoction is given as a common beverage to a child, which in the womb of the mother has received nothing but bad food, and was ushered into this world having the appearance of a mummy. These persons think that this beverage cannot be very injurious to the child, they are not aware that it is a poison for the tender plant, that through the exciting power which it exercises upon the nervous and vascular system, it acts perniciously, and in a new-born babe may produce griping, spasms, and other diseases.

As we have already mentioned, pregnancy is no sickness, for the accompanying symptoms, such as lassitude, a

hitherto unknown degree of weakness, inclination to sleep, increased circulation, palpitation of the heart, shuddering followed by sudden heat, increased appetite and thirst, inclination to vomit, real vomiting, headache and toothache, a particular sensitiveness and excitability, afterwards constipation of the bowels, inclination to pass urine, pains in the small of the back, swelled feet, etc., are the natural consequences of pregnancy, depending upon the period of conception and development, (a process going on in the body of the mother) and upon the constitution, which, periodically, come and disappear, without any further interference, and which are generally considered as so many symptoms of an existing pregnancy.

But even when all these symptoms concur, we cannot always calculate with certainty, that a female is pregnant, because the same symptoms occur, more or less, in females under other circumstances. With more certainty, however, we may infer a real pregnancy, when the menses do not appear for a month or more, or when they appear at an unusual time, when the abdomen about the hips begins to expand gradually and to become rounder, when the breasts enlarge, and single darting pains penetrate to the nipples, and in the morning drops of a clear fluid exude from them; but all this is only probability, not certainty, the only sure sign of an existing pregnancy for the young mother is, when she feels the child move.

There are, no doubt, many symptoms of an existing pregnancy by which the physician in particular may be guided; but the most infallible, no doubt, is the quickening or moving of the child, which, generally, is observed between the seventeenth and twentieth week, which first appears like sharp, pricking blows in the abdomen, and which later, particularly towards the end of pregnancy, becomes

stronger and more frequent, and too often troublesome. As it cannot be my object to follow the pregnancy through its different periods: the act of conception, the change in the womb, the formation of the embryo and its developments until it is a perfect child, which is the business of "Gynecology," I shall leave the subject and proceed at once to my task, namely, to define what is beneficial and what is injurious to the health of the fœtus, which includes also the dietetic treatment during pregnancy.

This treatment may be divided into two parts, in that of the mind, and that of the body. Nothing is more desirable for a pregnant woman, than that she should possess ease of mind and cheerfulness, and that supported by joyous hopes for a fair future, with affections towards her husband, without any fear, she might expect the moment when she presents to the world her offspring, a new man. For when the mind is quiet and cheerful, not subject to irritations, free of humors, enjoying every hour of life, then the fruit which she bears in her bosom will thrive, and come into the world blooming and hopeful. When, on the contrary, the young woman, formed too sanguine expectations of the marriage state, dreamed of an ideal pastoral life, which is not to be found upon earth, and in a few weeks or months was undeceived; when convenience has concluded the marriage, and no heartfelt, rational affection exists on either side, then, the otherwise gentle creature generally changes her behavior. Then the young wife, thinking herself justified by her maternal feelings, gives way to her passions, which will increase, if the husband does not know by reason, love and friendship, to restrain them within bounds. All the equanimity of her sex forsakes her, and the otherwise gentle soul can bear nothing now, is impatient at the most trifling inconveniences, weary of her burden, is

unreliable, inconstant in her wishes, hopes, words, praise and blame. Then love too often changes to hatred; she adopts an artificial conduct which deceives those who ought to be dear to her, and thus deprives them of all the joy which they had a right to expect from the connubial connection.

These uncertain feelings, this humorsome conduct is followed by anger, jealousy, inclination to discord and quarreling, a never gratified longing after some unknown something, which again is succeeded by sadness, fear and terror, with which the mother torments both herself and the child which she bears.

If under these injurious influences the child lives, there is no doubt that such passions must hurt both the mother and the child, and increase the difficulties at the time of delivery, because passions of any kind not only disturb the mind, but also undermine the health of the young woman, giving rise to very grave disturbances of the nervous system, such as congestion, fever, excess of bile, loss of appetite, and a whole host of diseases.

A similar injury, as that, produced by the influences just now enumerated, is caused to the health of the mother and of the child, by that sentimentality which in our times is increasing so much, by a disposition to melancholy, pondering at misfortunes which may come to pass, by terror, fear of future events, invention of causes, which in their effects, may produce vexation, grief, sadness, sorrow, etc. But as it is written in the book of fate, that no human being runs through his worldly career without being, at least, sometimes, visited by vexation, grief and sadness, and although this is particularly true of the mothers of families, with whom it happens that, just during the time of pregnancy, there are many causes which might affect their disposition unavoidably, still they have it in their power to control

them by reason, that is to say, if their education has been of the right kind, and they consider that all the fretting does not change the past, and what is most important, that the child which they bear, will suffer from it as much as their own constitution, whilst a firm determination can counteract these injurious influences.

This victory over themselves, pregnant women will not obtain however, if they give way to their imagination, which points out to them a sad future, when every day, they become more terrified as to the result of their pregnancy, allow no remonstrance, no reasoning to alter their once formed opinions, adhering to them obstinately to the last moment, namely, that they will have difficult labor, that their own life or that of their child will be sacrificed, that on account of a sudden fright or the unexpected sight of a deformed or crippled being, they may bring into the world a crippled child, or may have a miscarriage, which fear is particularly strong with those who have already been unfortunate in this respect. With such despondency and continuing fear, it is easy, when these emotions have weakened the pregnant woman to a great degree, that at the most trivial fright or mechanical concussion, her fears become realized, that her child is brought into the world, unable to live, that she thus destroys the hope which she and her friends have fostered so long, in short that she kills her child. Here, strength of mind is wanted to root up images which rest upon unfounded suppositions, here, there is a want of that information which every mother should impart to her daughter as a dowery when she gets married.

Where superstition prevails, and a woman in our times believes in evil wishes, an evil eye, overlooking, etc., there the fault lies in the education, and we have many instances where the ever increasing activity of the nervous system

becomes destructive of the health of the mother and of the child. May this therefore induce every mother to give to her marriageable daughter correct ideas of the natural course of a pregnancy.

Every woman who thus frets and worries herself, we should advise to go to one of the Lying-in Hospitals in Vienna, Berlin, Naples, Paris, etc., and convince herself that of the pregnant women, who before their entrance into these institutions, have lived under various circumstances and under very different influences, of the immense number of the births which take place every year, scarcely one in sixty requires any artificial assistance; that scarcely one child in a thousand is born with a defect, and that years will pass before a single monster is born, and that the latter is neither in consequence of fright or disagreeable sights during pregnancy, but that it had its cause in the defective original formation or development of the child.

By this means the woman will have an opportunity of convincing herself that without a particular mechanical influence, without malformation in the mother, and without her own fault, no accidents occur. These women, who have not strength of mind enough, who find neither pleasure nor amusement in their household occupations, who have not sufficient confidence in the all-wise providence and goodness of God, should, at least, look for entertainment and amusement in the circle of their friends, in the fair scenes of nature, in useful and cheerful reading, in order to guard against despondency and fear, and to protect their health and that of the child.

As to the dietetic rules of pregnant women, they may be considered under the heads of air, cleanliness, food, clothing, rest and exercise.

Let the air be pure. The dwelling therefore ought to be

spacious, sunny, free of all vapors, particularly of those of coal; it should at all seasons, be aired once a day. Staying several hours in the open air daily, is also very advisable. The constant companion and just pride of woman is cleanliness, wherefore I shall only mention here how it is to be applied to the body during pregnancy.

It is generally known that the cleanliness of the skin is an important object of health, it being the organ which forms the connection with the outer world; that the pores, when not obstructed, do not only facilitate the exudation of what is superfluous, but also absorb the air or its animating spirit, conduct it through the mass of the juices to the blood, thereby increasing its circulation, or in a manner regulating it. For this reason we find the healthy, rosy color in the face of the inhabitants of the highlands, the purest air is in constant regular contact with all the organs through the orifice of the mouth. Therefore, in checked perspiration, we find in activity and the reverse in inflammation of single organs, a dry, parched, and even a burning hot skin; in liver and bilious complaints, a yellow color of the surface; after eating asparagus, musk, a similar smell; on taking cochineal, the reddish color of the skin, etc. But as it is a fact, which has not been known until lately: 1st, that the warmer the water used for bathing, the more weakening its effects upon the nerves; 2d, that on the contrary, the fresh spring water as well by its own vivifying power, as through its freshness and the fixed air, which, in boiling, escapes in vapors or in bubbles, and by which the water is deprived of its carbonic acid, the really vivifying and refreshing principle produces upon the skin, by its contractive power, great vital activity, causes a reciprocal action, and with it a more rapid circulation of the blood and change of juices, wherefore, every one, who takes

a cold bath or washes in cold water, first feels a degree of cold and afterwards an agreeable sensation of heat, the skin becomes red and appears fuller, whilst, when bathing in warm water, according to the degree of warmth, the skin first becomes red, the whole body warm or hot, nay, a rush of blood, congestion, and also fainting-fits occur, because the blood rushes back towards the larger vessels, the more important organs; after the warm bath, the skin becomes wrinkled, pale, a chill comes on; persons who are so disposed have attacks of apoplexy, the blood not being able to return into the smaller vessels; 3d, that it protects pregnant women from rheumatism and its unhappy consequences; and 4th, that an experience of many years has shown me that even women who were weak, who were ailing in different ways during their pregnancy, who could not bring children into the world without difficulty, requiring artificial help, who suffered from adhesion of the placenta, (after-birth,) hemorrhage, etc., after having accustomed themselves for the cleaning of the skin, to wash in cold water, to use cold baths, and shower baths, did not only become again quite blooming, but were delivered from all their sufferings, before and during pregnancy, brought into the world without all artificial aid, healthy children, expelling the after birth without any manual interference, and without a return of the hemorrhages, we are obliged to admit the great healing power of cold water, also when applied during pregnancy.

In consequence of the facts just mentioned, which may be verified by a number of examples, I cannot too earnestly recommend to females, who are weak, hysterical, subject to miscarriages, uterine hemorrhages, (floodings,) to irregularity of the menses, etc., to accustom themselves to the use of cold water, and to continue it during pregnancy.

Hereby the following directions should be observed : accordingly as the patient is more or less hardened, or her constitution is stronger or weaker, or subject to ailments, she should begin to wash first with warm water, and gradually accustom herself to use water colder and colder, until she can bear pure spring water.

But if the female is weak, afraid of the water, timid, let her begin to wash only her face and hands, then the breasts, and later, the whole body ; very weak and sensitive persons should roll themselves up, from the neck to the heels, in a large double sheet, which has been steeped in warm water, and allow themselves to be rubbed over the whole body by several persons at once. Here attention must be paid to the time, which in the beginning should be limited to half a minute, but which, after a continuation of six weeks, may be increased to five minutes. As the time is thus gradually increased, the temperature of the water should be decreased a degree every two days, until it reaches the natural degree of cold water.

When a married or a single woman has once been accustomed to wash her body every day, one way or the other, in water, the temperature of which is always lower than that of her skin, (a feat which is not very difficult when once the commencement is made), she will herself be convinced of the vivifying and restorative qualities, by the increase of strength and the diminution of her suffering ; she will of herself progress in the application ; for every woman soon wants to become an "Undine,"* so much so that I have often been obliged to warn against exceeding the number of baths prescribed. From washing in cold water the patient may proceed to bathing in rivers ; the

*A character in a novel, by Baron de la Motte Fouque.

former, with ladies who have weak constitutions, should never last longer than five minutes; the latter, only from ten to twenty minutes, and the whole body should be afterwards rubbed dry, with dry linen cloths; particular attention also is necessary that no one enter the bath whilst heated or flushed, nor with a cold skin; for only when the body is warm without determination of blood to the head, the cold bath can act beneficially. After the bath the person should dress immediately, and walk about until quite warm, then drink several glasses of water, particularly in the morning, but never eat until the body has recovered its usual warmth. Another precaution to be observed is, that no bath should be taken immediately after a meal, but that always one or more hours should be allowed to elapse. Generally the baths may be continued until one or two days before the commencement of the menses, the washing until they appear; and even whilst they continue, the head, face, breast and hands may be washed in cold water.

Every woman therefore, who is in the family way, and who has not yet enured herself, in the manner just described, to the use of cold water, should try to do so because it will be of infinite benefit to her, as well during the period of pregnancy, as at the time of delivery, for it will render her stronger, less subject to injurious influences, make the symptoms, which always appear during pregnancy, milder, nay, perhaps prevent them altogether, make the labor easier and hasten the recovery; the child will come into the world and have a fresh look; as already mentioned before, the often dangerous uterine hemorrhages, (flooding,) and the adhesion of the placenta (after-birth) will be prevented by the increased contractability of the uterus (womb), and the spontaneous expulsion of the after-birth be accelerated.

A pregnant woman, who has not bathed as described above, may accustom herself, even during her pregnancy, to washing in cold water, and continue with it until the last moment; but women who are already enured to the use of cold water, may, in summer, continue the use of the bath to within one-third of the termination of their pregnancy, but from that time until the day of the birth, proceed with washing thoroughly in cold water, particularly the breast, the abdomen, down to the knees. As constipation is very common with women, who are in the family way, a long and successful experience enables me to recommend, with confidence, daily, a hip-bath, of from five to six minutes duration, and every second or third day, two or three injections of water, of the temperature of that, with which the patient washes; also drinking freely of spring or hydrant water, of sweet, but particularly of sour milk. In case of a discharge from the vagina, fluor albus, (the whites,) besides the river-baths, these hip-baths taken in the fore and afternoon, and continued for half an hour, will be of infinite service; the water for these baths must be of the temperature, to which the patient has already become enured.

Respecting food, we often find that women who are with child, take an inexplicable dislike to many eatables, which are of themselves entirely harmless, or complain of inconvenience after they have eaten them. The principal rule of diet is moderation, and it would be well if every woman, under these circumstances, would strictly observe it, and eat only at fixed times, and without overloading her stomach, simply to satisfy the cravings of hunger. Among the things most injurious to a pregnant woman, and to the child which she bears, I place first: coffee, tea, spirituous liquors, and medicines. Coffee, which, as well as tea, has become, in our days, an indispensable requisite two or three times a

day for the fair sex, and which even women who are in this condition, will not abandon, although they perceive themselves the pernicious effects, produce under all circumstances injurious consequences, and in particular, during this period of female life ; for its fine aroma, when the vital activity is already increased, causes rush of blood, morbid irritability, nervous excitement, and disturbance of the functions of the separate organs, leading as the use of spirituous liquors, particularly punch and cordials, to an over-excitability, the symptoms of which the observer cannot fail to discover, and which are, that the formerly blooming healthy looking woman, with red cheeks, has of late become pale, that her skin grows white, yellowish ; that her spirits fail, that ill-humor, want of appetite, disorders of the stomach, hysterics, and constipation make their appearance, of which the worst consequences fall upon the child, as it will be ushered into the world, weakly, with a wrinkled, yellowish skin, dropsy in the head, and a disposition to imbecility. Although numerous instances may be quoted, where the use of coffee and of spirituous liquors have not produced any perceptible bad effects, they cannot destroy the facts which we have obtained from observation, and which, every experienced accoucheur, physician, and father of a family, who has had an opportunity of observing, will find true and confirmed, namely, that the said liquors, as well as the frequently taken medicines, exercise a pernicious influence upon the pregnancy itself, as well as upon the labor and upon the child. Not less do we recommend to each pregnant woman, to whom her own health and that of her child is dear, and to every husband, who cares for the life of either, to avoid all bleeding, not called for by a plethora, which suddenly threatens the life of the mother, and the more so, as women who wash in

cold water, or take cold baths, can never be placed in this situation. They retain their full and healthy breasts with sound nipples.

Of the articles of food which it would be difficult for the pregnant woman to digest, I shall mention: asparagus, cellery, parseley, parsenips, all sorts of spices, particularly saffron and mace, also cabbage, black radish, all greasy food, particularly pork, geese and ducks, lemons, and cakes containing yeast. As wholesome, I should recommend as a beverage during this period, first, fresh water from the fountain or hydrant, cleared of all its impurities, and at its natural temperature, because, by its freshness and carbonic acid it animates the body, increases the circulation of the blood, improves digestion, and thus promotes the secretion of the milk. Weakly females, however, particularly after sickness may take with their dinner some good old wine in fresh water, and in the middle of summer, fresh water with orange-juice and sugar, ice of the same, also water with raspberry syrup.

Game of all kinds, good beef, and full-grown veal, fowl and turkeys, fresh fish, spinage, white and yellow turnips, carrots, cauliflower, potatoes, and flour, prepared in a simple manner, without any spice, will furnish both mother and child with nutritive and wholesome food.

The principal object of clothing is to protect the body against cold, and against the immediate rays of the sun. It might be made so as to obtain this double end, if fashion, the mania of our days, did not interfere and tyrannize over us, and particularly over woman, from her earliest infancy.

Too warm clothing prevents evaporation, and confines the nitrogen, which cannot escape, in the juices of the body, producing a diminished circulation of the blood and

in the mass of the juices an acrimony, which ultimately causes diseases of the skin and other maladies; it weans the skin, the natural covering of the body, and the body itself from the contact of the air, and renders it so delicate, that on the slightest occasion, an exposure to a draught of air, an attack of rheumatism or diseases of a graver nature must follow.

But as too much clothing has an injurious effect upon the health, so also the insufficiency of the dresses of women, by which the neck, the shoulders and breast are exposed to the influence of the atmosphere, independent of all moral considerations, produce a mischievous effect upon the constitution. We see women, who over a light stiff under garment, wear nothing but a lawn dress, exposing themselves during the uncertain seasons of autumn and spring, and during the summer evenings, to every change of weather and to every draught of air. The skin is at such time in a contracted state, in which it is unable to perform any reaction; hereby the circulation of the blood in the capillary vessels of the skin is interrupted, and the same constantly driven back towards the centre; thus the regular circulation is prevented, which produces a very injurious effect upon the health, particularly upon the glands and the development of the breasts.

The greatest injury to woman, however, arises from confining the breasts and the body by stays and corsets, and from wearing bandages round the body, to be in fashion, without considering the accidents which after the slightest overheating, may occur, and without thinking, that with young girls, by this means, the growth of the breasts and the general development of the bust is prevented, producing sometimes the most disastrous consequences.

Women who before marriage have followed this injurious

fashion, should, when they become pregnant, pay particular attention to this subject. By wearing stays, corsets, or bandages and pants, which are worn without braces, or shoulder-bands, the circulation of the blood is stopped, the functions of the bowels interfered with, breathing made difficult, which again causes rush of blood, palpitation of the heart, sickness of the stomach, interrupted digestion, convulsions, and fainting fits. Besides this, the abdomen, by being constantly confined, loses the power of the necessary expansion, whereby the bowels are pressed downwards, and the development of the fœtus is prevented. Besides the injurious effects produced upon the abdomen by lacing, the female breasts also suffer from this practice, because it interferes with the slow conducting of the juices to the breast, a preparatory process, necessary for suckling, so that the vessels, which are to receive these juices, and the ducts, which serve for the secretion of the milk, cannot sufficiently expand and enlarge.

In consequence of our every day sad experience, we would advise every mother, as soon as she feels herself pregnant, to arrange her clothing, so as to be fit for any season, without interfering with the expansion of the abdomen or breasts, and without partially exposing the latter.

It will be evident to every intelligent female, who reads this book, why I do not pursue this subject any further, and I shall only add that every pregnant woman should particularly keep her feet dry.

Many women, when in the family way, are very fond of rest, but whatever their inclination may be, how much repose may be recommended by her relatives, their inclination and this advice should only be attended to so far, as to avoid too strong exertions of the body and of the mind, as just in the first months of pregnancy, exercise contributes

to the health of the mother and to the development of the child.

Pregnancy in itself induces languor and lassitude, wherefore pregnant women frequently feel inclination to sleep, to repose, in fact to be idle. Many yield to this inclination, during the day, sleep frequently several hours after dinner, and spent the rest of the day in sweet idleness, in a state between sleeping and waking. From this source much unhappiness springs; the house and the husband are neglected, and the foundation of discontent is laid. But this is not the only evil, which arises from this state of lethargy, it produces mental and physical disease, melancholy succeeded by discontent; indisposition succeeded by actual illness, and frequently by labor, which terminates fatally.

Every young married woman should therefore attend to her domestic affairs, during her pregnancy, in the same manner as usual. Occupation makes the body healthy and cheers the mind. Yet, although her time be claimed by the management of her house, she should not neglect to take every day a walk in the open air, which must be considered as one of the rules to be observed during the time of pregnancy. Women who have never had a miscarriage, and who have no sickness to contend with, may drive and dance, and when the latter is done, in moderation, even to the last hours; for I have frequently had occasion to observe, that just those women, who, up to the time of their confinement, took plenty exercise in the open air, had the easiest labor; and I have even met with instances, where women who had previously lived a sedentary life, and had not been able to bring children into the world, without artificial aid, have later, when they took plenty exercise in the open air, climbed hills, with moderation, and danced,

had an easy labor. But *walking* in the fresh air must be made an absolute rule, as driving is never so salutary. The other exercise, such as dancing and the climbing of hills, is intended as exceptions for strong and healthy individuals, and where the physician thinks it advisable. Weakly persons, who are disposed to hemorrhages, on the contrary, should during the first months of pregnancy, avoid riding, skipping, dancing, running, stretching, falling, constant low stooping, and lifting of heavy weights, for many a time a young married couple have been deprived of all their hoped for happiness, by the like imprudent conduct, of which every woman will have had an opportunity of hearing instances related, in the circle of her female acquaintances.

As to conjugal intercourse during the time of pregnancy, a woman, otherwise healthy, ought to be very moderate, and during the last third of her time, should avoid it altogether. Weakly, irritable women, who are subject to nervous diseases, to miscarriages and to hemorrhages, should refrain entirely, from the time of conception during the whole period of pregnancy.

THE MIDWIFE.

THERE is nothing more to be regretted than the ignorance of the midwives particularly of ours; many mothers are sacrificed because they have never learned how to render the necessary assistance.

THE FIRST RULE.

A midwife, above all things, should be pious, chaste, sober, not daring, discreet, modest and experienced.

She should be pious, that she might be afraid of punishment in laying hands upon the woman in labor, for the blessing of the Lord is not given to the wicked.

She should be experienced; and it would, no doubt, be better, if no woman were allowed to practice midwifery, without having made an examination as to her experience and scientific knowledge.

SECOND RULE.

She should, at least, have been present at the dissection of a female body, that she might know the construction and situation of the uterus (womb), and the vagina at the time, when there is no pregnancy. If she can be present at the dissection of a pregnant female, so much the better, as she will thereby obtain a more perfect idea of these parts.

THIRD RULE.

It is necessary for her to know how far a woman is gone in pregnancy, when the child begins to move, that is when the woman quickens, what is the natural position of the child, and at what time the labor is likely to begin. But, above all, she ought to be well acquainted with the symptoms of pregnancy, so that she can distinguish a maid from a pregnant woman. It is not so easy to distinguish between the suppression of the menses and a pregnancy, and between the latter and dropsy in the abdomen, for even physicians have treated women for dropsy until their child came into the world.

Most troublesome are those women who are in the family-way for the first time, and are ignorant of all the symptoms of pregnancy, frequently deceiving their physician

with their incorrect stories, when they take this or that slight movement for the motion of the child. This shows that we cannot immediately decide as to pregnancy, from one or two symptoms, but that we must connect them, and from the whole together, we may come to a proper conclusion. The principal symptoms of pregnancy are :

1. The cheeks of pregnant women are mostly red, but not at all times ; the cheeks of those who suffer from suppressed menstruation are pale.

2. With those, who suffer from the latter, we perceive around the private parts and at the orifice (mouth) of the womb a swelling, which with pregnant females is found higher up, towards the navel.

3. Females in the family-way generally do not feel any diminution of strength, nor is the appetite so much affected as with those, who suffer from suppressed menstruation ; but this symptom is not quite reliable, because some females at the time of pregnancy are much weaker than others.

4. With the pregnant woman the veins begin to swell and become more perceptible, particularly on the thighs, which is not usual with others.

5. The breasts swell ; but this is not always the case, many have no enlargement of the breasts, and yet are in the family-way.

6. The urine is said to be thicker and clouded ; this symptom, however, is deceptive, nay, the most deceptive, as the same symptom is observed in many other diseases.

7. With some the hips enlarge, with some not ; some carry the children more in front, some further back.

8. Finally, we have the last and most infallible symptom, namely, the moving of the child, which generally takes place between the seventeenth and twentieth week.

When we find this and the other circumstances correspond, we may be sure that a pregnancy exists. Sometimes it happens that this motion is not very perceptible until in the seventh month, particularly when the child is weak, in which case the abdomen should be externally rubbed with spirits, oil of mace, or nutmeg, which strengthens the child, so that the motion will be felt more distinctly. The same effect would not be produced if it arose from some swelling or flatulency.

But it is not enough, that the midwife should know the symptoms of pregnancy, she ought also to be able to judge, whether an accouchment has lately taken place, which, at an examination, it is frequently necessary to ascertain. In this case, attention should be paid to what follows :

1. After being delivered, the skin of the abdomen remains wrinkled, and does not immediately return to its natural state.

2. If the delivery has taken place only a short time before, the discharge of the blood, which is perceptible for six or eight weeks after confinement, though only in small quantities, is the surest sign.

FOURTH RULE.

The midwife should be well acquainted with all the incidents which may occur during an accouchment, and must know how to distinguish, with certainty, true labor pains from false ones. Much depends upon this, for an inexperienced midwife frequently fatigues the patient too early, and before the time of delivery has really arrived, and, during false labor pains, urges her to exertions, so that when the time really comes, she is unable to make any.

Real labor pains are contractions of the uterus (womb), which commence at the back and go downwards. The spurious or false pains, commence also at the back, but go upwards, and terminate about the navel; at the time of these false pains, the woman should not make any exertion, the proper time should be allowed, and then a trifling compression of the abdomen will deliver the woman, for nature makes much greater efforts to expel the child, than the mother can make herself. Those who do not attend to the laws of nature, will never usher a child into the world, though they should employ every expedient and manipulation. The expulsion, without the effort of nature, is impossible. But when nature is prepared, it becomes the duty of the midwife to examine, whether the child is in a proper position to be expelled, if the interior orifice of the uterus is open, which is to be ascertained by introducing two fingers, dipped in oil. When this is ascertained, the mother should be encouraged, she should be told not to let her breath escape, for fear of prolonging the labor. The patient may place her hands on the abdomen, in order to accelerate the expulsion somewhat. When the child is born, the midwife should tie the navel-string with a double waxed thread at the place where it is attached to the abdomen, and then separate the string, three fingers wide, over the ligature, she should now seize the navel-string, which is attached to the placenta (after-birth), give the child to the assistants and try to obtain the after-birth, the extremities of which, together with the navel-string, she will take in one hand, whilst, if necessary, she detaches it with the other. After she has obtained the after-birth, she should spread it out, so that every one may see that no part of it is left behind. For it is very dangerous if this occurs

with the whole or part of it. In a village, in Upper Stiria, I witnessed the following case :—A woman, who had retained the placenta for four weeks after her delivery, was attacked by violent heat and convulsions ; after taking spirits of hartshorn, however, she fell into a great perspiration, and the after-birth was expelled, emitting the most horrid smell imaginable. Generally patients who meet with this misfortune, must die. When the child is born, and the after-birth expelled, a bandage should be placed round the abdomen, and the patient be put in a well-made bed, so that the discharge of the lochea (cleansing) go on properly. In the meantime, the child must be bathed and cleaned, how this is to be done, I shall mention hereafter.

These directions will suffice in cases of easy labor.

Difficult labor is of two kinds ; the one where the mother, the other where the child is the cause. In the former case we generally perceive a want of animal spirits, this want must be supplied by analeptics, and antispasmodics, as they are very necessary in difficult labor. The child is the cause, when its position is wrong, which arises from too much motion at the time of labor ; when the patient tosses from one side to the other, or when the proper time has not yet come, and the woman is urged to exert herself. Also, when a foot or an arm presents itself, which, if not pushed back very soon, will mortify, and will have to be separated by the knife as soon as the mortification is really discovered. But, generally, the child dies in such difficult labor. The midwife must therefore be well informed, to decide whether the child is dead or not, that she may not kill a child which breathes very weakly, or, when it is already dead, delay too long, to the great danger of the mother. Sometimes the child must be divided by instruments, in the womb of the

mother, and be extracted in pieces, which operation requires considerable firmness.

It is known that the child is dead, when the patient is attacked with rigors and faints, when the face, and particularly the lips turn pale, when cold sweats make their appearance, when the exterior parts are lead-colored, and when there is no motion in the womb, or when, on turning from one side to the other, it falls heavily like a stone, also when there is a very offensive discharge from the womb.

Finally, the nurse ought to know whether there are twins, for it may easily occur, when both strive to escape from the womb, that she seizes one foot of each, thinking there is but one child, or that she commits some other mistake. Although there are no certain and infallible signs of the existence of twins in the womb, we may yet suspect that it is so, when the abdomen is not every where equal, but is in some parts more elevated than in others, when a greater and unequal weight is felt, when the movement of the one is stronger and more lively than that of the other, and the motion is consequently perceived in two different places, either by the mother or by others.

FIFTH RULE.

The midwife should know, what is the womb, what a prolapse of the vagina, and what is to be done in such a case. The physician is seldom consulted on this subject, so that he might form an opinion whether it is a prolapse of the womb or a prolapse of the vagina. Eminent Doctors have argued differently, some maintaining that there could only be a prolapse of the vagina, others that there might also be a prolapse of the womb; this was, however, not meant to be taken in its literal sense, and we should not im-

agine that a prolapse of the womb is impossible, nor should we think that the uterus is turned inside out, as we might turn a cap; this would be ridiculous. But the remedies which are to be given internally, in a case of prolapse of the uterus, are mild tonics on account of the flaccidity of the ligaments. Properly speaking, the midwife ought also to know how to treat the patient under THESE circumstances, but I shall leave it to the physician.

It is also the duty of the midwife to prevent the use of all superstitious remedies with females in confinement. There are many such known among old women, but I think it supurfluous to speak of them here. Some, in difficult labor will advise the patient to put on her husband's stockings or a dirty shirt, others will give her his urine to drink, as if he bore the blame of all this; again, others will tie round her body a belt of human skin, pretending it to be possessed of some peculiar potency, such and similar applications the midwife should invariably oppose.

LABOR.

What does the man, who has never been called father, what the woman who has never borne a child, know of pains, of joy? The sufferings at the time of giving birth are great, but the sight of the new-born babe makes the mother forget all, and fills her with delight most exquisite, she has given herself a child—to the world a man.

At last, after much suffering, the long wished-for moment approaches, when the mother is to be freed of the burthen, which, for nine months has reposed in her bosom, fed upon her blood, and grown into life; at last the moment approaches, which, to the mother, seems never to

come, for she longs for the time when she will press her child to a mother's bosom.

When a woman is near the termination of that period, which is so all-important to her and to her child, we would advise her to cast another glance at the household, at the nursery room, and at her preparations for her confinement, and to make such arrangements, as may appear proper, that the young mother may not be worried by questions, during the very first days after her confinement. This is sometimes very improperly done, whilst the woman is in labor.

As to the chamber, in which the woman is to be confined, it should be spacious, light, dry, and sunny, care being taken that the rays of the sun do not incommode the mother or the child. The air in the room should be pure, wherefore it should be frequently ventilated, but in such a manner, that the mother and the child are not exposed to any draught, which can best be done by opening the windows of an adjacent room, for a couple of hours, whilst the door between that room and the nursery is kept shut; then let the windows be shut and the communicating door be opened. All smells, odors, even scent should be banished from the room, coal gas from the stove or fire-place should be avoided, and no washing or scrubbing be done in the nursery. Let the temperature be moderate, and never exceed 16° Reaumur, (68° Fahrenheit,) because too high a temperature is injurious to the mother and the child, wherefore there should be a thermometer in every nursery, near the window, to ascertain, at all times, the temperature of the room.

The moment when the child begins to come forth from its covering, that is, from the membrane which lines the womb, is called the moment of delivery. This delivery has

a double object, the one to separate the child from the organs of formation, which have now become superfluous, and to conduct it to the outer world, the place of its future existence; the other to produce in the female body that change which is the beginning of a return to the state in which it was before conception.

The change commences with the first stage of labor, and terminates when the child is weaned. The effort itself, by which nature expels the child, now capable of supporting life, together with the waters (*liquor amnii*), the membranes, and the placenta, is called the birth of the child. But before this takes place we have several indications which inform us of the approaching labor, these are: the bearing-down of the child and the womb. We find the pit of the stomach as if empty, and the skin which covers this part, wrinkled; the pelvis, on the contrary, is filled, and the abdomen sometimes projecting over it, whereby a peculiar dragging is produced in these parts and in the small of the back, which in the face of the patient shows itself by a prolongation of the features, so that she can frequently determine her approaching labor by the change in her countenance. A particular pressure is felt in the hips and the adjacent parts, which sometimes becomes painful, and hinders the patient from walking; in consequence of which, urinating becomes difficult, constipation and heaviness of the bowels, and swelling in the lower extremities make their appearance. These, together with a peculiar uneasiness, a fear and longing, never before experienced, a shuddering, running through all the limbs, and a mental and bodily lassitude are the real precursors of approaching labor.

The time is divided by physicians into four periods or stages, that of prognostication, of preparation, of actual

labor, and of expulsion, which latter is the real birth of the child.

The period of prognostication begins by a drawing pain in the back, which is of short duration, and which extends towards the lower part of the abdomen and thighs, and frequently is not unlike the feeling which is experienced at the time of the first menses. When these pains increase in duration and intensity, when they are accompanied by perspiration and fear, and a moisture is felt in the vagina, the preparatory labor-pains have commenced, which, as they increase effect the dilation of the mouth of the womb, (us uteri,) and which are assisted and promoted by the passing downward of the waters, (liquor amnii.) At this time a portion of the membranes of the ovum can on examination, be felt.

These pains, just described, are of different duration, sometimes they last one hour, sometimes several, nay even from six to twelve, and in first labor, and with females advanced in age, sometimes thirty hours. When the membranes are in this flaccid condition, a good pain finally breaks them, and with this the third period or stage begins. The waters (liquor amnii,) are discharged, though not always at once, because the two membranes of the ovum frequently appear still separated, and a considerable quantity of the false water (liquor allantoides) remains behind, which requires a second breaking of the membrane.

After the discharge of the waters, a cessation in the process of delivery takes place, and a repose connected with entire exhaustion succeeds; the pains ceasing from half an hour to a whole hour. During this interval the walls of the womb press against the child, by which means a greater excitement is caused therein, inducing real labor

pains. At this period the part of the child presented, generally the head, enters the mouth of the womb, (us uteri,) and descends deeper into the pelvis, whilst the mother cries aloud and suffers from pressure of urine and inclination to stool, frequently accompanied by vomiting, trembling, perspiration, faints. After the head has passed the orifice of the womb, it descends into the cavity of the pelvis, and this terminates the third period or stage of labor, the duration of which is sometimes only a few minutes, sometimes for want of pains, several hours. Here also an interval of repose generally ensues, after which the trembling pains succeed one another rapidly, and drive the head with a rotary motion against the perineum. By this straining this part may be easily lacerated, if the midwife is not very careful. The best way to prevent this accident, is to support it by a roll of linen, or by the back of the shut fist. Now, the fourth period, that of expulsion has commenced. The pains are lasting, violent, accompanied by shocks and agitation, and the head or the breech passes through the orifice of the vagina, after which there is another respite or cessation of a minute or more, and then the rest of the child is expelled during another pain or two, but with much less suffering.

As soon as the child is born, all pains and troubles are forgotten, and in most cases the mother feels perfectly happy at the sight of the child, which she longs to take in her arms. During this interval of from ten to thirty minutes, the womb begins to contract, descends until at last it can be felt like the fist of a man, over the pubis, and with one or more smaller pains separates from the so called after-birth, namely, the placenta, the membranes of the ovum, and the navel-string. That this is taking place, we may know from the appearance of a small quantity of blood in the vagina, which is discharged from the closing vessels of

the womb, and from those of the placenta at their separation. This terminates the labor, and the mother feels weak and sleepy.

During the time of labor the patient should have on a cap, shawl, night-gown, petticoat and stockings, she should avoid impatience, not try by premature pressing and forcing to increase and hasten the labor-pains, for this as well as all wanton screaming, restless conduct, and tossing about in the bed, deprives the patient of the strength so requisite in the later stages, and protracts the labor unnecessarily. But these are not the only bad consequences which result from it; by impatience, lamentation, and useless prayer to be relieved from the pain, both the patient and those around become frightened; it also induces the midwife to try to hasten the birth by her interference, which is never without evil consequences for the patient.

Therefore every woman in labor should keep as quiet as possible, should slightly assist, by her own efforts the pains, and after each, remain perfectly still until new pains come on, at which time the nurse should assist the patient by holding her hands and her knees. In case the patient complains of thirst, she may drink cold water, as often as she pleases, but not too much at a time. If the patient is nervous and feels faint, her face may be washed with cold water; if she suffers from headache, the nurse should put wet cloths on her forehead, which must be changed whenever they get warm.

As soon as the midwife is aware that the time of labor is approaching, it is her duty to put every thing in order, that is requisite for the mother, whilst in labor, and for the child, after it is born. The manner of making the bed for the patient is, as follows: upon a common paille, place a straw, sea-weed, or hair-mat, over which spread a

common sheet, and upon this, at that part which will be occupied by the seat, a sheet doubled several times, which to save the mattrass, may be covered with an oil-cloth, the back should be supported by a sofa-cushion or something similar, and the head and breast be high and comfortable.

Let the midwife attend to the different periods of labor, and avoid all hasty, manual, or medical interference. She should not try to assist the patient by giving her warm tea, camomile or nutmeg-tea, saffron or cinnamon tincture, and other mixtures; for the like interference nature never suffers with impunity, the mother and the child feel the consequences.

The midwife should confine herself to keeping the mind of the patient tranquil, to obtain for her comfort and quietness, not to leave her, to make examinations from time to time, and to determine and regulate the commencing periods, according to the changes she has observed.

If the midwife, on examination, finds something unusual, if the phenomena of labor, or the strength of the patient is such, that a favorable termination is doubtful, either respecting the mother, the child, or both, she should demand an accoucheur, whom the patient or her relatives should select. When he arrives, it is his duty to attend inostentatiously, with proper regard to female delicacy, he should not be hurried, and by no means allow himself to be determined upon bringing on forced labor, for experience teaches us that nature, if we allow her time, is able to perform enough, and much even in the most difficult cases. In cases of violent convulsions, of fainting fits, of pains with long intervals, or when suspended altogether, of too early or only partially separated after-birth, in partial adhesion of the after-birth, and the consequent flooding, and even where the use of instruments seemed unavoidable, I

have applied with the utmost success cold fomentations, by steeping a linen cloth, doubled four or six times, in fresh fountain or spring water, and placing it over the whole of the abdomen, changing it at intervals of from five to fifteen minutes, according to circumstances. Through the refreshing power of the water, the nervous system of the patient is excited, through the frequent drinking of spring water and washing the face and chest with it, and through cold fomentation of the head, the convulsions and spasms, as well as the fainting fits are suppressed, and through the cold applications to the abdomen, a greater activity in the muscular fibres is produced in the womb, forcing the same to contract. By this means, the pains become stronger and more rapid, and an earlier delivery, and the separation of the placenta is effected. By continuing these cold fomentations of the abdomen after the child is born, which then ought to be extended to the knees, the strongest hemorrhages of the uterus (floodings) will be stopped in the shortest possible time.

When the child is born, the patient should be allowed to rest, for the body fatigued by the arduous struggle, which it is woman's duty to make, requires time to recover its strength. To prevent all dangers, particularly where there has been much hemorrhage, the patient should remain in the same bed, in which she has been delivered, only the pillow which supported her back, and the soiled linen should be removed, and something clean put in its place. When she has somewhat recovered, she may be brought carefully to another bed, which is to be kept in readiness for that purpose, and as a sweet recompense for all her sufferings, be allowed to press the new-born babe to her maternal bosom.

THE CHILD-BED.

WHEN both the patient, and those around, her have acted, before and during labor, according to the dictates of nature, the confinement will pass over, without any troublesome casualties.

The beverage of the patient should be cold water, which is the most suitable for herself and for her child.

As to the food, it ought, for the first three or four days, consist of plain broth of lean meat, with groats, sago, rice, wheat bread, pearled barley, or egg and wheat flower, and of milk porridge; only after the fourth or fifth day should the patient be allowed to take light meats, such as young chickens, stewed veal, etc., and preparations of flour, continuing to avoid coffee, all sorts of vegetables and teas; and not until after the expiration of ten days or a fortnight should she return to her usual diet.

Although with the expulsion of the child and the after-birth from the womb, pregnancy and labor terminate, it lies in the nature of the case, and is not a mere habit or custom that the patient must remain, according to her constitution, from eight days to a fortnight in her bed, and from two to six weeks in her room.

This time is necessary for the uterus, after its great expansion, to return to its natural size, for the wound caused by the separation of the placenta from that organ, to heal, and for the lochia to discontinue. The latter, commonly called the cleansings, is a discharge of lymph from the vessels which remained exposed, at the separation of the placenta, and ceases as soon as these vessels are closed, and the wound is healed. It is followed by a secretion of a puri-

form, white mucus, which, on account of the increased irritability of the membranes and glands, continues until they return to their former natural state, which takes place in a fortnight or later, according to the individual constitution of the patient.

The midwife should see to it, that the parts are kept perfectly clean, by washing in luke-warm water, and by a frequent change of linen. Washing in water of from 18° to 23° Reaumur ($72\frac{1}{2}^{\circ}$ to $83\frac{3}{4}^{\circ}$ Fahrenheit), is particularly useful, not only as a means of cleanliness and invigoration, but also to increase the activity of the skin. I diminish the temperature of the water by degrees, until in the third and fourth week the mother can bear it, at 8° and 10° (50 to $54\frac{1}{2}^{\circ}$ Fahrenheit). After this, while continuing to lower the temperature, until it reaches that of spring or hydrant water, I order the abdomen and the parts, and afterwards the whole body to be bathed, a custom which every woman is glad to continue for the remainder of her life; for she becomes accustomed to it, feels herself revived, strengthened, less liable to be effected by injurious influences, as the result teaches; she is stouter, looks fresher, and fairer. I can, therefore, not sufficiently recommend the fair sex to accustom themselves to wash in cold water, for experience has shown me that women, who had previously suffered from difficult labor, adhesion of the after-birth, flooding, and irregular menstruation, which had been either too copious and too frequent, or too sparing, from whites (fluor albus), have, since they have accustomed themselves to washing their body in cold water, brought children into the world, not only without any difficulty or danger, but with ease, and have been entirely free from these complaints.

As want of cleanliness, improper diet, too early leaving the bed, going out too soon, may have a bad effect, and

also every violent emotion, particularly anger, may be injurious to the patient, we would advice every woman to avoid these, as much as possible, if she wishes to escape a prolonged sick-bed.

When the nipples of the breast were sore or too small, the flow of milk insufficient, the breasts hard and painful, I have always made, successfully, cold application of a linen cloth, doubled four times, steeped in fresh spring water, wrung well, and placed over the whole breasts, over which I have put dry linen pads, which I changed as often as they became hot.

For the last twenty-two years I have applied this remedy in all the cases that have occurred in my practice, and I have never found it to fail.

THE LIFE OF THE NEW-BORN CHILD FROM THE FIRST MOMENT OF ITS EXISTENCE.

Every animal organism passes, during regular stated periods, through a series of developments, prescribed by the laws of nature, and thus also the progressive and retrogressive growth and existence of man is regulated.

The fœtus, in its covering, enclosed in the womb, appears different from the new-born child; the life of this child before teething, appears different from that after teething. What a difference between the age of the boy and that of the youth, between that of the man in his vigor, and that of the old man; and how infinitely great is that change which shows us man first in his germ and afterwards in the pride of strength. All depends upon the development, which in a manner prescribed by nature, progresses irresistibly in each separate organic part, and in each period of life for itself, and in all and at the same time harmoniously

and uniformly, which we ought not to oppose either by art or the folly of fashion in any way. Let us not imagine that we poor bunglers must come with a helping hand to assist nature in her work and to refine at it, when we cannot even comprehend her, cannot fathom her.

The young scion comes out of his little world, the womb, among us, and the first effort, the cry by which he commences this epoch of development, is not to gladden the heart of his parents, or to announce his existence, nor the sound of complaint by which he wishes to express his pain; but it is a sound which he utters in the effort and in consequence of the want of breathing the air.

Breathing is most intimately connected with the preparation and the circulation of blood, as by the expansion of the lungs the blood is conducted to them. The pulmonary artery, (artery of the lungs), namely, conducts from the right ventricle of the heart the blood in great masses to the lungs, whence the pulmonary vein conducts it back to the right auricle of the heart. By this deviation from the former circulation the heart is placed in its proper position, as during the time the ductus Botalli closes, the vein which passed from the portal vein to the inferior cava, becomes impassable, and the foramen ovale lessens by degrees, until at last it fills up entirely. This alteration causes also, in the first period of the life of the babe, a considerable change, because it no longer receives, as in the fœtal state, the blood through the umbilical vein, but through the portal vein.

As soon as the first development of natural breathing has taken place, the attentive observer perceives how the child manifests its desire for the proper food, by the motion of the tongue and the lips. For although the organs of mastication are still undeveloped, those of swallowing or deglutition are entirely formed. The secretion of saliva on the

contrary, is very inconsiderable, and the stomach, which is still very small, can receive but little; its muscular fibres are very weak, its sides or walls, as well as the intestines, thin; it is filled with mucus, and wants the power to dissolve the food, wherefore, digestion proceeds very slowly, and that organ, as well as the intestines, can only rid themselves with difficulty of more solid masses. It would therefore be improper to force the child to take the breast as soon as it is born, or to burthen its stomach, which is weak enough, with thick fat milk and slimy and sweet drinks. With a new-born child there is no difference between the thin and thick intestines, for besides being very vascular, (full of vessels), both kinds are very thin walled and filled with a dark-green tough mass, called meconium, for the discharge of which nothing should be done; in case of actual constipation, a bath or two each day will have the desired effect. As the intestinal canal progresses to perfection, the liver remains behind, both in its growth and activity, wherefore in the grown subject, the latter is much smaller, paler in color and harder. The bile rushes abundantly towards the duodenum, and by its bitter fluid forces the whole surface of the intestines, as well as the membranes to contract, and thus to propel the contents onward.

The kidneys and the bladder are very imperfectly developed, the urine does not take the yellow color, and its peculiar odor, until in the fifth or seventh month. As to the system of generation, it is in the child, the same as in the foetus, entirely inactive, and does not reach its maturity until much later.

The general character of the body, during infancy is more fluid than solid; the solid parts are generally soft and delicate, the fat without substance, flabby. The development and activity of the muscles are still in the first stage,

and with the exception of those necessary for sucking, swallowing, crying, opening and shutting the mouth, which are immediately subject to the will of the new-born babe, they do not reach the proper degree of developement until very late. For this reason the child cannot hold up its head or retain the excrementitious matter, it does not learn to walk until late, &c. Like the muscles, the bones, particularly the heads of the long or cylindrical ones, are not developed. As they consist of cartilage, do not afford any firm support to the muscles, and are soft and pliant, we see so many children whose limbs are bent, who have bow-legs; the immediate cause of which is their having been held crooked in the arms of the nurse, and having been put to walk and stand too early.

The blood of the child, as soon as it has breathed, becomes considerably darker in its color, the vessels are more numerous, more expanded, and display greater activity, wherefore the pressure of the blood towards the capillary vessels of the skin is greatest during this epoch. This cause and the state of irritability, which is produced in the skin by coming in contact with the atmosphere, to which it has been unaccustomed heretofore, explains the color of carmine or scarlet, in new-born infants. The NERVOUS system, in proportion to the other systems, displays a considerable degree of activity, much more than in the later periods, wherefore it is disposed to irregularities, is very sensitive and excitable. As on the contrary the brain is less developed, as the ganglia are larger and the nerves stronger and because they, together with the brain, are soft and delicate, the organs of sensation are almost entirely inactive, and the child lives a sort of dreamy life. This delicate constitution of the nervous system, of the new-born child, easily explains the strong impressions which external influences

produce upon it, often becoming the cause of violent attacks, such as spasms, convulsions, cramps, inflammations, enlargements, dropsy, ect.

The skin, which at this period is still very loose, more delicate and porous than in grown persons, has a great abundance of nerves and vessels, and consequently a more animated vegetation, from which a disposition to frequent morbid secretions and corruptions may be expected.

The glandular system, finally, is that which is most developed at the birth of the child, as we see in the Thymus-gland and the collateral nerves, wherefore in infancy a disposition to glandulous affections and scrophula, is common. As in the separate systems, the difference between the life of a child and of an adult is apparent, so the same is not less observable in the dynamic relations, that is to say, in the three fundamental functions of the process of life, namely, the organic development and formation, (reproduction,) the voluntary action of the muscles, (irritability,) and in the mental activity and self-consciousness, (sensibility.) The excitability in the child is often as strong as its power of action is weak and without volition, which accounts for frequent, sudden and violent illness of the child, which, a few hours before was quite well; in the same manner, as in nature, we see a violent storm followed by a deceptive calm, we often see a violent attack of sickness succeeded by sudden relief, which is the result of the easy exhaustion of the strength of the child, and which, in similar cases, is but too often regarded as a real improvement, until we are undeceived by the appearance of violent and dangerous symptoms.

From the above described structure of the infant, my fair readers will perceive how much proper nursing is requisite for its future existence. Happy, therefore, the child, when judgment and capacity, added to patience and maternal af-

fection, are united in the bosom of the mother, to protect it and guide it until grown up, until it fulfils its destiny.

THE FIRST CARE OF THE INFANT.

This consists in removing every thing, that may have a baneful influence upon the life or the health of the child, and in procuring every thing requisite, that the necessary growth of the child's organism may advance to maturity, without being disturbed. Our attention should therefore be first directed to the circulation of the blood, every mechanical obstacle which might disturb this function, should be removed with all possible diligence, the air in the nursery should be pure and wholesome, the mouth and nostrils of the infant should be freed carefully, with the finger, of their foreign contents, such as phlegm and blood. If the navel-string is round the neck, it should be disengaged as quickly as possible, and if that cannot be done immediately, it should be cut. If with weak premature children, although the mouth and nostrils have been voided of their contents and the navel-string has been disengaged, respiration does not commence, place the child, as soon as possible, into a tepid bath of 24° to 27° Reaumur (86° to $92\frac{3}{4}^{\circ}$ Fahrenheit), apply friction whilst in it, pour water in short gushes over the head and breast, and direct to the same parts a small stream of water ; as soon as the child breathes, put it in warm cloths.

In cases where, after difficult labor, or from other causes the child comes into the world apparently dead, we should distinguish whether it is a mere faint or apoplexy. We may suspect a faint, when the mother before, during or after labor, has lost much blood, when the child itself, by a laceration or tearing of the navel-string has lost any blood,

if it lived for some time after it came into the world, and ceased to breath afterwards from exhaustion. In this case the face as well as the whole body appears pale and the lips blue, and the navel-string should not be tied, but the child must be wrapped in warm cloths and be left in the lap of the mother until the after-birth has separated ; if then respiration has not returned, or if the after-birth was expelled with the child at the same time, let the child, together with the after-birth, be placed into a tepid bath of from 18° to 20° Reaumur ($72\frac{1}{2}^{\circ}$ to 77° Fahrenheit), and the head, breast, and limbs be sprinkled with cold water until returning life manifests itself by jerks, tremulous motion around the mouth, returning heat in the body, redness of the lips, pulsation of the heart, and finally respiration recommences and rewards us for our trouble. After this let the child be wrapped in warm cloths, and place it on the side of the mother.

If through some mechanical cause, or other injurious influence, the child, during difficult labor, is attacked by apoplexy, the symptoms cannot be mistaken.

The whole face of the infant is very red or bluish red, or even black, the eyes project from their sockets ; the body is hot, dark-red, or here and there covered with blue spots, and the skin is stretched and dry, the umbilical vessels are congested with blood, in which, not unfrequently, pulsation is almost visible ; in most cases of this kind, the children are large, strong, and fully grown. To counteract quickly the suspension of circulation, which has here taken place, we should give it vent ; in this case, this is most easily effected, by diminishing the quantity of the blood. Let the navel-string be cut as quickly as possible, and in cases, threatening danger, let a small tablespoonful of blood escape from that part, which adheres to the child, whereby

both the degree of undue fulness of the blood, and the bodily constitution of the child is to be taken into consideration. As soon as one respiration is perceived, the navel-string should be tied in the proper place, three or four fingers' breadth from the belly of the child. Of essential service, are, in this case, cold effusions over head and breast, by means of a small watering pot. But, if respiration should not ensue, then place the child into a very cold bath, up to the middle of the chest, pour water over the head in the manner described above, rub the breast and limbs well, excite the gullet, with a feather to cause vomiting, to remove the phlegm, that might perhaps have accumulated in the nostrils, and breathe into the mouth and nostrils of the child, but very carefully. If animation returns, which appears in the muscular motions, breathing or crying-out, wrap the child in dry, moderately warm cloths. But if breathing after a while becomes weaker again, if the face resumes the dark-red color, replace the child into the cold bath, renew the former operations, without letting blood, until the attack is passed.

As soon as the child is born and the navel-string is separated, let it be the first duty of the midwife or nurse to clean the child of the cheesy coating of mucus and blood with which it is covered, by putting it in a bath, the temperature of which must not exceed 24° Reaumur (86° Fahrenheit), although later it must be diminished, of which more hereafter. This bath must last from fifteen to twenty minutes. Wash with a soft bathing-sponge first the eyes, and then the body lightly, in doing which the child should be supported in the bath in such a manner, that the hand is under the shoulders, and that the head rests upon the fore-arm of the nurse. Nurses and mothers are here particularly warned not to use the sponge, with which the cheesy coating of the body has been

removed, in washing the eyes afterwards, for experience teaches us that this often produces very dangerous inflammations of the eyes, to which new-born children are liable. After the child has been washed, and the cavities, such as the eyes, mouth, nostrils and anus have been cleaned of the phlegm, the nurse should examine the child whether it has not received some injury during labor, whether none of the natural apertures are closed, or whether there is not some malformation. When she has satisfied herself in this respect, let the child be wrapped in dry clothes, and without further uncovering it, be placed along side of the mother. Later, after the first rest, the child should be washed, and lightly swathed and dressed, which ought to be done quickly, without losing any time with hugging and fondling the infant. When clean and dressed, present it a second time to the mother, who may now put it to the breast, whereby the mucus that may still be adhering to the throat, will be best removed. If the mother is sickly, and still exhausted from labor, let her lay on her side, and in this position give the child the breast.

Many mothers, or so called famous nurses, imagine that the child must be purged, and give it, before placing it on the breast, fennel, anniseed, camomile-tea, or syrup of manna, tincture of rhubarb, etc., and thus prepare pain and discomfort for the poor infant, that has scarcely perceived the light of this world. Every one ought to discountenance the like remedies, and take care not to injure the child by such quackery, customs, and superstition, the consequences of which, to the health and constitution of the child, are sometimes most distressing.

THE FIRST CRY.

As we have already mentioned in the preceding chapter, the first cry of the child is, in consequence of its efforts to obtain fresh air, which enters the lungs and the empty cells, extending them and forcing the lungs by the irritation to inhale and exhale. This cry lasts until all the air-cells are capable of respiration, producing the expansion of the lobes of the lungs, which before the birth, were closely compressed, opens the chest sufficiently, and thus forces the blood from the anterior ventricle of the heart into and through the lungs. We should, therefore, not try to stop the first cry of the child, by turning, fondling, or rocking it, or, perhaps, slapping it behind, etc., as this might prove very injurious for its respiratory organs. This first cry, which is accompanied by a heightened red color, by opening the nostrils and the mouth, by the motion of the hands and feet, differs from the succeeding, in commencing by short, jerking sounds, which grow longer and longer, and terminate in a full, clear sounding scream, during which not a tear is ever visible in the eye of the child, and which is never accompanied by an echo or sobbing; the child much fatigued, soon closes its eyes. Soon after, the crying commences again, and this second cry differs perceptibly from the first, and is forced from the infant by the unaccustomed contact of the surface of its body, with the atmosphere of the room, by the light, by the handling, and by the bath. Now, the scream is a shrill cry of three to four successive jerks, which is followed by an echo or a much longer scream, not unlike the bleating of a sheep. Here, we should try, if we can do

any thing, if perhaps the light in the room is too strong, if the bath is too cold, or worse, too warm, if the clothing is too rough or too tight, if the child is swathed too tightly, or is in an improper position.

THE SUCKLING OF THE CHILD.

Woman, whose noble destiny it is to supply with food, the child, which she has carried for ten months in her bosom, during which time it has drawn its sustenance from her juices, until its digestive organs shall be sufficiently developed, feels, as mother, a natural desire of performing this important duty herself, and not to leave it to a mercenary stranger. For nature, which had supplied her with peculiar organs for this purpose, inspired her with maternal love, and with a feeling of pleasure to feed the babe at her own breast. What woman, who has ever nursed a child, will deny that just that feeling is the reward of all the sufferings she has endured, and all the duties she has fulfilled during this period? As soon as the first period of pregnancy commences, the female bosom begins to fill, to expand, the nipples become larger, the otherwise pale-red areola becomes deep red, and frequently a milky fluid exudes from the breast. All these indications of future capability of suckling, increase, as pregnancy advances, and disappear as rapidly, if by a miscarriage, the child, incapable of supporting life, dies prematurely. These are proofs that the functions of the breasts are in harmony with those of the organs of child bearing, and that the milk of the mother resembles most the food, which has supported the child before its birth.

Already at the first interval of repose, which the patient

enjoys after the child is born, the breasts commence to feel tight on account of the rush of the juices in these parts, for when the child is born the functions of the uterus cease, and the flow of the juices is diverted from that organ to the breasts.

When the mother is in good health, she feels immediately disposed to give her child the breast, which may be allowed, as soon as the child is cleaned and dressed. When the tightness is in proportion with the filling of the breast, the mother experiences a sweet feeling of comfort, which, with proper management will be lasting.

If, on the contrary, the duty, which nature has imposed upon the mother, namely, that of suckling her infant, from vanity, rage for public amusements and entertainments, from ignorance or the ridiculous, unfounded belief that nursing brings on premature old age, or from intentional neglect of the first duties of the mother, is deferred or entirely abandoned, then, swelling and hardening of the breasts, milk and other fevers make their appearances, and these are generally accompanied by interruptions in the progress of convalescence, principally of the lochia, and other untoward symptoms, which unfortunately produce the most distressing effects. The number of cases where young, robust mothers, who had not suckled their children at all, or had weaned them suddenly, have lost their lives or become idiots, notwithstanding the utmost medical attention, is immense. When, with women who do not know the sweet feeling, which the mother experiences, in suckling her babe herself, one pregnancy follows close upon the other, and the milk which is secreted, is not withdrawn, a disturbance in the functions of the glands of the breast and of the lacteal vessels ensues, which diverts the whole force of production from this organ to the uterus, in which, in consequence of this

uninterrupted labor, there arises a morbid activity, which leads either to entire inertness, or to hysteric affections, (nervous irritability), to flooding or to leucorrhœa, (the whites), or to tedious inflammation; if this occurs in individuals who have a secret predisposition to disease, or who indulge in excesses, it terminates in tumors, such as wens, polypi, indurations, or cancerous affections. These evils, whether they come early or late, when once they exist, no physician can cure, and therefore, we see but too often, particularly in the higher classes, young women fade away, who, although nothing is spared to save them, find relief only in a premature death.

Oh, that mothers, therefore, would take advice, and fulfil this holy duty which Providence has assigned to them! that they would nurse their own infants! How much pain and trouble would they save themselves and their child.

Experience teaches us most incontrovertibly, that the generally prevailing opinion, that the charms of the mother fade earlier, that the fullness and beauty of her proportions disappear sooner, when she suckled her infant on her own bosom, is without any foundation, is a mere invention of vanity; for women who do not suckle their children preserve their beauty no longer than those who do.

Are not beauty of face and fulness of form perishable gifts, the continuation of which depends upon the constitution, upon sickness, upon disposition to disease, upon fortune, upon conjugal happiness or misery, and upon the changefulness of human life? Do we not find numerous instances among the lower classes, where the majority of the women, who suckle their children are at an advanced age healthy, buxom, and, considering their years, may still be called handsome! What signify single instances against so many

proofs, against all the evil consequences of the neglect of this holy maternal duty !

Let us suppose, however, this injurious illusion to be true ; let us suppose that the mother, in the fulfilment of her duty, had to pay her tribute to nature, by losing her charms a few years earlier, she would yet owe it to herself, her child, her family, to the dictates of morality to fulfil that duty. She owes it even to the State, of which she is a citizen, to her country, which has a right to expect from her, that she should endeavor to the utmost of her power, to bestow strength upon her offspring, and not to burthen society with cripples, weak in body and mind.

Women who suckle their own children are looked upon with more respect ; the love, the affection of their husband increases and thus their conjugal life and domestic happiness is promoted.

In an inverse proportion, as the omission of suckling the child is injurious to the mother, so is the receiving of the pure milk from the mother's breast advantageous to the child. As soon as the mother has somewhat recovered from the fatigue of labor, and when the child has been bathed and dressed, let her enter with patience, love, joy and hope upon the fulfilment of the great duty, the suckling of her lately born child. But before putting the child to the breast, it is the duty of the midwife, to take care that the breast of the mother be washed with luke-warm water, and the nipples be moistened ; which latter the midwife can do best, by rubbing them forward, with the tops of two fingers. And now the mother may put the child to the breast, which, for the first three days had better be performed whilst lying on her side. But it happens not unfrequently, particularly with the first child, that the babe

will not take the breast, at which, the mother should not become alarmed, for either, there is not yet sufficient milk in the breast, or the nipples are not yet prepared for the operation; or the child is weak, or is perhaps what is called tongue-tied. In the first case the mother should patiently wait until the quantity increases, and in the meantime give the child a drink of half milk and half water, with a little sugar.

Nature, in her wisdom, has here also made a provision that the mother, exhausted by her exertions, should not be too much troubled by the child and gain time to recover; for the little stranger, generally, sleeps away the first days of his existence. When the nipples are not yet in a proper state for suckling, the mother should frequently put the child to the breast, though not too often, that the nipples may become longer and larger. If the child is weak, let the mother wait until it recovers, which will soon take place.

If there is more milk in the breasts, than the child can suck, the best thing is, to rub the nipples with the moist fingers, and to put upon the breast, cloths doubled several times and warmed in the bed; these should be changed as often as they are damp. But in spite of all possible precaution, the business of suckling does not always succeed entirely to our satisfaction, and without pain. Sometimes the child will suddenly start back from the breast, drawing its lips rapidly over the nipples, and causing the mother a piercing pain, which is also felt in consequence of the child leaving off too frequently.

When the nipples are small, and the child takes them between the lips and draws them in, a violent pain that penetrates into the breast, is felt, which seems to be insupportable to the mother, who, if she is not firmly leaning against

something, will involuntarily start back, and thus tear the nipple out of the infant's mouth. This frightens the child, it screams and becomes impatient; the mother pities it and scarcely is the worst of the pain past, when she puts the child again to the breast, and the just described scene is renewed. By this sudden withdrawing of the nipples, if repeated often, they become sensitive and crack. The outer-skin also becomes very sensitive, and if notwithstanding, new attempts at suckling are made, without allowing the pain and sensitiveness to pass away patiently, the nipples will get red and sore; they, as also the breast, will become hot, and if the attempts are continued, or, in order to get rid of the superabundant milk, use is made of nipple-glasses, the irritation increases the pains, the milk comes in small quantities, and appears thin and cloudy. The breast becomes hard, knotty, (full of lumps), with a feeling of pressure, which condition, if neglected, may lead to the worst consequences.

When the breast is already in this condition, it should, on no account, be given any more to the infant, because it will not only make it impatient, but may cause real sickness. The best thing is, not to listen to any old woman's advice, on this subject, but to send at once for an experienced physician.

The best means that I know to prevent this evil, is, that the mother must, however difficult and painful it may be, leave the child on the breast until it ceases to suck. To effect this, she should lean with her back firmly against something, and softly press the head of the child with the flat of the hand against her breast. She will find, that as soon as the child is sucking freely, the pain ceases, with the exception of a few short stitches, which become weaker every time. And she will succeed the sooner, if she allows

a considerable time to elapse, after the child has been sucking, and in case the nipples are cracked, painful, or inflamed, if she place over them and the areola, compresses, the size of the palm of the hand, of fine old linen, which have been dipped in lukewarm water and been slightly wrung, and over these, dry compresses (pads). These compresses must be changed as often as they commence to get dry. But if the breast looks blackish, is hard, and feels knotty, put over the whole breast linen rags, four times doubled, and well wrung out; as soon as they are dry, let them be changed until the pain and hardness disappear.

This remedy I have always found attended with the best success, even where the swelling, hardness and pain were very considerable, the milk had failed entirely, and ulcers had made their appearance. In a short time the breasts healed, a sufficient quantity of good milk was produced, and the mother was well and hearty. But whilst she is sick, strict attention to diet is necessary, and she must be particular, to keep the compresses, which are over the wet cloths, constantly dry.

The above simple treatment of this kind of sore breasts, I can recommend most conscientiously, having tested it, and convinced myself that it is most judicious. At the same time I cannot repeat too often to young girls and young mothers to beware of stays and corsets. This fashionable folly is one of the first causes, perhaps the principal one, that young mothers suffer from small nipples, sore breasts, their late development, slow secretion, and bad quality of the milk. Therefore no woman, particularly after the commencement of pregnancy, should put on stays or corsets, or otherwise confine the breasts.

When the time, which is generally considered proper for a mother to remain in bed, has passed away without any

accidents, she should, in the beginning, spend a few hours a day out of bed, and return only gradually to her usual occupations. This precaution should be used, even if the mother feels sufficiently strong, because the body, which has suffered much, is still very sensitive and irritable. Particularly she ought to guard against taking cold, as during the first days she will be very liable to do so.

As to diet, it is also necessary to be very cautious, not only during the period of confinement, but during the whole time of suckling. Every woman who is pregnant or nursing should refrain from every sort of spirituous liquor, of spicy, sharp, hot, salted and preserved meats, of salt or pickled fish, of coffee and tea of all kinds, particularly of Chinese tea, of elder tea and the like, because they have a bad effect upon the secretion of the milk, and consequently upon the health of the child.

Every woman who suckles, should also avoid excess of mental application and all violent emotions. She should be very particular as to the cleanliness of the skin, as this has great influence upon the secretion of the milk as also upon the lochia (cleansings), we therefore repeat, that washing or bathing from five to ten minutes at a temperature of from 24° to 26° Reaumur (86° to $90\frac{1}{2}^{\circ}$ Fahrenheit), cannot be too urgently recommended. The temperature of these baths, as has already been observed, must be gradually diminished.

Although there still exists an opinion, and particularly in this country, that a woman should not leave her room for six weeks, my experience authorizes me to recommend fresh air, before the expiration of that period, particularly during the summer months. When she goes out for the first time, however, she should select fine, and, if possible, warm and calm days, should dress according to the season and tempe-

rature, and avoid exposing herself to a draught. Although I would warn every woman against wearing flannel, cotton flannel, or lamb's skins, upon her breasts, yet she should protect them against cold by appropriate clothing, and altogether guard against dressing too lightly, as this, but too frequently, is the cause of serious maladies.

THE NURSE.

Although it is natural for every mother, and Providence has imposed it upon her as a most pleasant duty, to suckle her child herself, yet there are cases which form an exception to this rule. But even in these cases, if there is no actual impossibility of suckling, I would recommend every accoucheur, every midwife, and every one who has any influence upon a woman in this situation, to induce her to suckle her child herself, if it be only for a week or fortnight; for, by this means, many of the dangers of child-bed are avoided, to which mothers, who refuse suckling their children, are exposed.

But this ought not to be the only motive for a mother to suckle her child; for even if no physical suffering should result from the non-fulfilment of this duty, she will not escape the reproach of her conscience for this neglect. Frequently such mothers find afterwards, to their sorrow, that their children treat them with coldness, and always prefer the nurse or foster-mother. A child must naturally imagine, that the person who suckles and nurses it, is its real mother. This love for the nurse, which it has imbibed with the milk, often continues to the grave, a circumstance which constantly galls the feelings of the mother.

Cases where a mother cannot suckle her child are : ex-

cessive weakness, nervousness of the mother, many kinds of diseases, of which it is to be feared, that they may be transmitted to the child by the medium of the milk; sore, diseased, or festering breasts and nipples; entire absence or bad quality of the milk, and finally, incapacity in the child to take the breast of the mother.

In cases where the mother is really incapable of suckling the child, and as the milk of a woman always remains the best and lightest food for a new-born child, it becomes necessary to substitute the milk of a nurse for that of the mother. But as the nurse exercises a very considerable influence as well upon the physical as upon the moral constitution of the child, parents can never be cautious enough in the selection of the individual. Above all, they should look to a pure, moral character, should not rely upon mere hearsay, but demand authentic proofs, and have recourse either to the family physician or some other reliable friend to make inquiries, and, satisfied on this head, they should assure themselves that she has no bodily defect, but is in perfect health. Her age ought to be as nearly as possible, corresponding with that of the mother, and when such a person cannot be found, the preference should be given to a woman between the age of eighteen and of thirty-six, whose constitution and temper, resembles that of the mother as much as possible. Another desirable point is, that the confinement of the nurse and of the mother should have occurred, as nearly as possible, at the same time, so that the existing difference between those juices, which have sustained the fœtus, and those which are to feed the child, may not be increased by the long interval between the delivery of the mother and that of the nurse. Nor ought the nurse ever to have had more than two children; her milk must be healthy and in sufficient quantity, and she herself must

not be married. To be convinced that a woman possesses all these qualities, a person should be a physician himself, as he alone is capable of making these examinations and inquiries. The signs of a perfectly sound nurse, are as follows: a fresh and youthful appearance, a rosy complexion, lively, sparkling eyes, a healthy and perfectly pure breath, dark-red lips, without being chapped or sore, clean, white teeth; full, firm and rounded breasts, sound, projecting nipples, without sore or chap, and forms well rounded and lusty. If, therefore, persons are necessitated to make a selection of this kind, they will do well to consult an intelligent, upright, and conscientious physician.

Of no less consequence is it to pay attention to the temper of the nurse, because the child is not only apt, with the milk, to imbibe also the passions of the nurse, but every strong reaction of the mind diminishes the milk in its quantity and changes its quality. This change often produces sickness of the stomach, retching, diarrhœa, cholic, convulsions, spasms, &c. Therefore it is necessary to see that she possesses a tranquil mind, not fretful, not given to amusements and pleasures, not fond of flirtation and free of jealousy.

The milk is good, when it is neither too thick nor too thin, more watery than consistent, when its color is bluish-white, when it is free of all taste and smell, when it runs off quickly from an inclined china plate, when, after being poured into water, it forms a light cloud, and after it has stood a while does not make too much cream. If we wish to be certain as to the nutritive power of the milk of a nurse, we should look at her child, and from its appearance, if healthy and blooming, or thin or emaciated, we may with confidence judge of the quality of the milk of the mother. As the suckling of the child influences both the present and

future state of its health, we can never sufficiently impress upon her mind the importance of her charge and interest both her heart and her conscience in the fulfilment of the duties she has undertaken. We should therefore explain to every nurse, as soon as she enters upon her service, exactly what she has to do and what not to do. As people are in the habit of allowing the nurse many advantages and treating her with great indulgence, it frequently happens that in consequence of the great importance, which is attached to her services, she is led to abuse the goodness of her mistress, and not only to make too free, but even to conduct herself, domineeringly and arrogantly. It is therefore necessary to allow the nurse no striking privileges, but to employ her at times, when she is not engaged with the baby, in such domestic occupation, as she is capable of performing. Such occupation is wholesome both for nurse and child. Most nurses belong to the working classes, and are accustomed to be occupied with some manual labor, from morning until night; when such a person is suddenly allowed to remain idle, becomes accustomed to rich meats, perhaps to spirituous liquors, the natural consequence must be, that the circulation of the blood is diminished, which soon produces a very injurious effect upon her own health and that of the child.

What trouble, however, we may take, in selecting a nurse and preserving her from all injurious influences, she never will and never can entirely supply the place of the mother. We certainly cannot expect from a nurse, out of love for the baby, which is a stranger to her, that suppression of all violent emotion, that equanimity, that love and care in nursing, and uncultivated herself, that capacity of fostering the mental powers, as they begin to unfold themselves, which we should expect from a mother. Has not the fact of her

misfortune already irritated her mind? Does not grief gnaw her soul, that she is obliged to leave her own child to the care of strangers. But suppose her mind to be perfectly free from all scruples of conscience, is not that a sure sign of great depravity, and should we not have cause to fear her thoughtlessness, her want of affection. But suppose the qualities of the chosen nurse to be all that is praiseworthy, the child at any rate is deprived of the advantages, which it would have obtained with the mother's milk.

From all that has been said, it will appear evident that the mother of the child, particularly in the beginning, should keep a watchful eye upon the conduct of the nurse. Order in suckling, proper and punctual attendance, constant cleanliness of the child and every thing about it, are the principal objects, to which she ought to direct her attention. The mother should also try, by quietly observing her, if the nurse manifests love and assiduity in her conduct, or whether she shows repugnance towards the child, she suckles; she should observe her watchfulness at night, and the manner in which, during that time, she nurses the child, to know if she really or only apparently, treats the infant with tenderness. She should also try to assure herself if the nurse is willing, peaceable, or quarrelsome and malicious. She should note further, whether the child remains healthful, lovely and blooming. If the contrary appears since the time that the nurse has suckled, we may suppose that the milk of the woman does not agree with the child, or is not sufficiently nutritive. In this case it happens frequently that the children are already uneasy, during the first weeks of receiving the milk, are troubled with diarrhœa, flatulency, spasms and eruptions and fall away. Under these circumstances it becomes absolutely necessary to change the nurse.

If on the contrary the mother has reason to be satisfied

with the nurse, she should also observe towards her those duties, which she owes to a person, who is to the child, what she is either unable or unwilling to be. She should not treat the nurse as one of the lower servants, for although it cannot be denied, that the majority of them, choose this life, for the sake of money or for the love of good living, yet we may be certain that many of them feel it bitterly that they give to a strange child, that, of which they deprive their own.

There are also many cases, where women are forced by their parents or their husbands to go as nurses; these will doubly feel a kind and considerate treatment, and certainly repay it by affection and devotion towards the child, which has been entrusted to their care.

As to the food of the nurse, it should be simple and nutritive, for, spicy, fat and luscious victuals, the taking of spirituous liquors, create acrimony in the fluids, and make circulations sluggish. Wherefore, she should be very temperate, even in the use of small beer, the only beverage she ought to drink, besides water.

THE NURSERY ROOM.

It should be in a quiet part of the house, near the sitting room, have plenty light with a southern aspect. It ought to be dry, the air pure and free of all vapors; washing and drying of clothes should be strictly prohibited, nor should it be heated from within, particularly by stone-coal, and all fumigating with odoriferous things should be avoided; flowers, birds and other animals should be banished entirely.

The child, accustomed in the womb of the mother, to the rocking motion, the quiet repose and the luke-warm tem-

perature of the waters, which surrounded it, knows neither the air, the cold, the sound nor the light; wherefore, in the first days of its existence, it is peculiarly sensitive, and we should look to it, that it be not exposed too abruptly to any of these influences. The temperature of the room should never exceed 18° Reaumur ($72\frac{1}{2}^{\circ}$ Fahrenheit), and later not 16° R., (68° F.)

During the first week the room should be kept dark, and the rays of the sun, of the moon, and every other light be excluded. All noise should be kept away from the nursery, it hurts the baby when awake, it disturbs it in its sleep.

The best way of keeping the air pure, is to exclude all exhalation and all vapors, and to allow no one but the nurse or the parents to sleep in the room; but as, notwithstanding these precautions, the air, by the constant consumption of oxygen, becomes charged with too much nitrogen, and at last may be injurious to the babe, it is necessary to purify it, once or twice a day, by changing it for the fresh air out-side. Let, therefore, the child be brought into another room, and open the windows of the nursery for an hour or two. Then let the child be brought back, after the windows have been shut and the temperature of the air has been restored to the usual degree. When the external atmosphere is not below 12° R. or 59° F., if the weather is neither rainy nor windy, and there is no draught in the room, we may open the windows, even in the presence of the child. For pure air does not only contribute to the preservation of the health and growth of the child, but is absolutely necessary, if we wish it to thrive.

When the air, we breath, does not contain a sufficient portion of oxygen, the blood is deprived of that material which preserves it from stagnation and corruption. But not only through the disproportion of the oxygen gas to that of

hydrogen gas, does the air become injurious, but also through all kinds of exhalations, such as vapors, combustibles, the evaporation from men, animals, plants, through all putrified matter which makes the air more or less unfit for breathing.

As, however, the air in rooms, notwithstanding our ventilating them several times a day, is not always quite pure, when these rooms are situated in the narrow streets of large cities, in low places, near brooks and rivers, it cannot be sufficiently recommended to the mother, after the first six weeks, when the air is not too cold, when it is neither rainy nor windy, to carry the child, at least twice a day, into a meadow or garden, and leave it there an hour or two, if the season is fine.

When the child is six months old, we may, at any season and during any weather and temperature, carry it or drive it out without the least apprehension. I do not mean that it is to be put in a close coach, with the nurse, the child's maid and three or four other children, which soon make the pent up air still worse than that in the room. A drive should only be taken in an open carriage.

The best light for the nursery is that of a spirit lamp or wax light, as they cause the least vapor. The flame of tallow candles and oil lamps does not consume their fat and other constituent parts, but communicates them in the form of smoke and vapor to the air of the room, and thence to the lungs, particularly to those of a delicate child, to which they become highly injurious. Equally detrimental are charcoal pans, warming-pans, or what is called fumigating.

As it has already been mentioned before, no clothes should be washed, dried or ironed in the nursery, because this, as well as scrubbing the floor, through the evaporation of the water, produces a bad effect upon the respiratory organs of the child; the latter should only be done in absence of the

child, which should not be brought back until the floor has become perfectly dry by open windows.

Particular attention also should be paid, that no dirty water, slops, or chambers are left in the room,

THE BATH.

If fresh, pure and wholesome air is indispensable for the preservation of the child's health, the cleanliness of its skin is not less so, for, whatever ignorance, prejudice, or the idleness of midwives, nurses, and child's maids, may say to the contrary, it is the preventive of a host of diseases.

The situation in which the child was for nine months, before it was born, surrounded by water, and in a manner living in this element, shows us that it requires the bath. To remove the cheesy mucus, which covers the child, when it is born, an immediate bath is necessary, and thus nature teaches us that the bath is one of the first requisites of the infant. The bath also quiets the child: most children when put crying into the water, become silent, and sometimes go to sleep in it.

Therefore, as soon as the navel-string is separated from the mother, let the infant be put into a bath, which should not be under 20° Reaumur (77° Fahrenheit), nor above 24° Reaumur (86° Fahrenheit).

The bath-tub should be large enough, to cover the child entirely, with exception of the head. I have frequently seen children bathed, when only part of the body was covered with water, whilst the nurse tried to wet the other parts by laving it with the hands. This is improper, it is the first cause of the child catching cold, and the partial

immersion produces a disagreeable sensation, which generally makes the child cry, the reverse of the effects of an entire immersion.

When the bath has been prepared, in the manner described, the midwife or nurse takes the child on the flat of her hands, and supporting the head with her left hand so as to raise it, she lowers it gradually and slowly into the water. When this has been done, she should first clean with a fine rag the eyes, the nostrils and the mouth, of the mucus which fills them, and examine whether there are not some malformations, or, if the child is tongue-tied, etc. As soon as these parts, as well as the face have been cleaned, she should wash the rest of the body with a fine sponge. Should the coating not yield to the washing with water, the infant may be rubbed with some unsalted butter, or with the yoke of an egg. After this, it may again be put into the water; the bath, however, must not last more than twenty minutes, and not get cool, but the same temperature be sustained, by adding warm or cold water.

When the child is bathed, it must be well dried, wrapped in swaddling cloths, which have been warmed in the bed of the mother, and thus rolled up, every time after the first two or four baths, brought into bed with the mother. The baths are to be continued in the fore and in the afternoon, under the same circumstances.

We should be careful, as I have observed before, not to touch the eyes of the child with the sponge, with which the infant was washed in the beginning, it is difficult to remove the cheesy matter (*vernex cascea*) from it, which being brought in contact with the eyes, might cause very malignant inflammation in these organs.

Care should also be taken not to bathe the child until an

hour after it has been suckled, and not to put it again to the breast, until at least half an hour has expired after the bath.

A long experience has convinced me of the great advantages of gradually hardening the constitution of a child; to obtain this object, one of the principal means is bathing in cold water. I have witnessed thousands of examples, where, by the washing and bathing, not only a numerous train of diseases of children were prevented, but where, when those diseases appeared as an epidemic, they passed off quickly, and without any malignant symptoms, and, therefore, I feel myself called upon, although many physicians still declaim against their use, to recommend them, most strenuously. They should be applied according to the undermentioned plan.

As a practical physician, I have had many opportunities of witnessing, that cold washing and bathing of children, not only fortifies their constitution, protects them from sickness, and causes these diseases by which they are attacked to pass off easily and mildly; but that even, where children to their sixth or eighth year were crippled and sickly, in consequence of Rachitis (rickets), scrofula, etc., and in order to prolong their miserable existence were obliged to take medicine constantly, without improving, they were restored to health, by the sole use of cold washing, bathing, affusion, combined with proper diet, clothing, exercise, and the enjoyment of pure, fresh air, and became blooming and strong.

After the child has been bathed in water of the aforesaid temperature for six weeks, we should fall 20° Reaumur ($4\frac{1}{2}^{\circ}$ Fahrenheit), and continue so, for the next month, so that when the child is ten weeks old, the temperature has been reduced from 24° to 20° Reaumur (from 86° to 77°

Fahrenheit), afterwards, the temperature may be reduced one degree, ($2\frac{1}{4}^{\circ}$ Fahrenheit), until in the sixteenth week the temperature stands at 15° Reaumur ($65\frac{3}{4}^{\circ}$ Fahrenheit), observing, that as we reduce the temperature from 24° to 15° Reaumur (86° to $65\frac{3}{4}^{\circ}$ Fahrenheit), the duration of the bath must be gradually diminished from twenty minutes to five minutes. When we have succeeded in accustoming the child to bathe daily twice, from three to five minutes, in water of 15° Reaumur ($65\frac{3}{4}^{\circ}$ Fahrenheit), slight friction being applied at the same time, we may continue in this manner, without making any change, until the child has cut its first tooth, and has been vaccinated.

An exception must be made with children, who are very weakly and sensitive; they may be bathed in the above temperature until they are three years of age.

After the child has got the first tooth, and has been vaccinated, we may lower the temperature to that of spring, hydrant, brook, or river water, and wash the child from two to five minutes, rubbing it all the time. With children who are otherwise strong, but who have a disposition for scrofula or rachitis, affusions by means of a small watering pot may be applied, besides the bath; in the warm weather this should be done twice a day, in winter daily, after rising.

After the fourth year, the washing should be continued uninterruptedly, and a bathing sponge be used; in time the child will become accustomed to the water, it will feel the want of it, continue so when it grows up, and enjoy good health. Besides this washing, we must look to it, that the children accustom themselves early to bathe in the rivers, and that they learn to swim. Experience teaches us that by this washing, not only cleanliness of the body is effected, that the skin is kept in constant activity, and becomes for-

tified against external influences, such as cold and wet, but also that the whole organisation gains by it, in accelerated growth, in strength and in a peculiar power of reaction, which leaves it less sensitive, and enables it to overcome more easily all epidemic and endemic diseases than any effeminate system could do. Numerous instances have shown us in later years, how few children, which are accustomed to wash and bathe daily, are attacked by quinsy, scarlet fever, purples, measles, small pox, and other prevailing diseases; and if we find single instances, where this is the case, how soon they recover from these diseases, whilst those children, who are not accustomed to cold washing, are decimated at the appearance of every epidemic, one half of those who escape, looking for years after, like corpses and suffering from the consequences.

Useful as cold washing is in these diseases, which are so much dreaded by the parent, and with right, it is equally so during the time of teething, for I and other observing physicians have found invariably, that children, who are accustomed to the cold bath, pass the period of teething, not only with ease, but that the majority do not show symptoms of sickness.

Certainly nobody can, nobody will deny the great advantages of learning to swim early; it contributes to the cleanliness of the body, and through the cold, the magnetic influence of the river water, and the varied mechanical exercise of the body, is of infinite benefit to the child.

Therefore, parents, guardians, friends and principals of public institutions should renounce all prejudice, and should convince themselves, how extremely advantageous it is, to accustom children to wash and bathe in cold water, and to learn to swim when young. Do not believe the adversaries, who, notwithstanding their want of all theoretical know-

ledge and practical experience of their sufferings, write so much against it, merely to prove to the world, that their manner of treatment is infallible, and that all the rest is nonsense. Go, convince yourselves in Hydropathic institutes, in private houses, where washing and bathing of young and old has become a rule; make experiments on yourselves and your families, and you will find that I have not praised it too highly, you will communicate to others your own experience, and thank God that you have become acquainted with it, for from that time forward your house is rid of doctor and apothecary, and with them of everlasting sickness, and you have effected a considerable saving in your expenditure.*

*Ferdinand Jung, a citizen in middling good circumstances, in Stock-rau, father of eight children, was, according to his own account, always sickly, also his wife and his children, so that the house was never rid of the physician, and 100 fl Conv. coin, (\$ 50) a year, scarcely sufficed to pay the medicines.

In the year 1839, I was engaged as domestic physician by F. J., and although I had many prejudices to overcome, I succeeded, notwithstanding, in the course of a year, after having effected the cure of really difficult cases, and attained the most brilliant results, to induce the family to adopt as only remedy, cold water. By this means, this family, who had been always sickly, does not only enjoy the pecuniary benefit of saving the money, which they were in the habit of paying to the doctor and apothecary, but all the members of the family have for five years enjoyed good health, with exception of a couple of cases of eruption or rash, and a lymphatic abscess of great size on the exterior trochanter of the left upper-thigh, which, as well as the eruptions of the skin yielded, without any difficulty, to this natural treatment.

Most conspicuous did the healing power of the water show itself in its effects upon the wife; hitherto she had been weakly, had suffered from nervous attacks, from hemorrhage at every birth, in consequence of adhesion of the placenta; since she commenced to use the water, she has given birth without any accident or delay, and has suckled her child, which was bathed every day, already more than a year.

FOOD.

To preserve life and to develop the physical capacities of any living being, a proper food is undoubtedly the most indispensable requisite. This being generally admitted we shall now take into particular consideration the food, which is most suitable for the infant.

The organization of the child being imperfect, the necessary secretion of saliva, the power of mastication and the muscular strength of the stomach, are too weak, as that the contractive power and the dissolving juices of the latter organ, should digest the substances which we might offer to it. It is principally the thin intestines, which, by the many absorbent vessels, they contain during this period of life, contribute to nourish the infant, and thus make up for the imperfect secretion of saliva, and the want of contractive force in the stomach.

In speaking of the food of a child, we can consequently, only have reference to liquids. The child, which immediately after being born, is nothing but a perfectly developed fœtus, which in the womb received its nourishment through the vessels of the navel-string and of the skin, requires to be nourished by the juices of the mother, not in the same manner as before, but through the breasts, because the milk resembles most those juices, which have fed it hitherto. This, no reflecting human being, who endeavors to trace the course of nature, will deny.

The importance of the mother suckling her child herself, has already been discussed, but as there are cases, where this is not practicable, our first business will be to examine what food is most suitable to take the place of the mother's milk.

The first of all, is undoubtedly, the milk of the nurse, because it approaches that of the mother nearer than any other liquid. But as we cannot always obtain this according to our wishes, we are obliged to have recourse to other articles, and feed the child with a spoon. By some physicians this has been entirely rejected, as very injurious, and they attribute the great mortality in foundling hospitals to this system, yet numerous cases prove that children, in cases where it was really necessary, and where proper care was combined with this system of feeding, have grown up, strong and healthy. Where casualties occur, it is generally owing to a bad constitution of the child, sickness, or improper food.

If the feeding of the child has become unavoidably necessary, let the mother or nurse observe the following rules carefully and conscientiously :

In the first instance, the preparation of the well chosen articles of food, should be suitable to the tender age and weak digestion of the child. It should always be prepared a fresh.

The feeding of the child should be performed with great care, patience and perseverance, only small quantities should be given at a time, and frequent intervals be observed in the feeding, a thing very troublesome, and connected with great inconvenience, yet the mother will be sufficiently rewarded in the feeling of having reared by her industry and perseverance, a helpless, weakly infant, to be a strong and healthy child.

But the exact observation of these two rules is insufficient, when the greatest cleanliness is not connected with it; useful as it is in the nursing of every new-born babe, it is doubly so in this case.

Through the uncleanness of the vessels, in which the

food is prepared, and given to the children, it becomes sour and spoils, and if given to the child, produces derangement in the digestive functions, frequent eructations, sourness of the stomach, vomiting, flatulency, thrush, and diarrhœa, and may even endanger its life. The mother should, therefore, look to it, that the vessels are kept constantly clean, and that the food is prepared a fresh every time.

Above all, the so-called sucking bags should be avoided, they are dangerous; the food in them turns sour very soon, against which even the greatest cleanliness is no safeguard.

The mother should never allow the nurse to take the food of the child in her mouth and to roll it about, to mix it with her saliva, and perhaps to extract the most nutritive parts. Independent of the disgust, which this conduct must excite, particularly when the nurse is a toothless old woman, it is always injurious to the child to have its food mixed with the saliva of another individual, which but too often is secreted from impure juices.

As to the kind of nourishment, it has been proved, that, for the first fortnight, liquid food is most appropriate, particularly a mixture of two-thirds of pure, warm goat's, ass's, or cow's milk, if possible, fresh from the animal, and one-third of fresh water. Care should be taken that the animal, from which the milk is obtained, is sound, and, if possible, that it has not had young ones more than four times. The milk of an animal, which is still sucked by its young, should not be used. It should be boiled every time, it is wanted, be mixed with the said quantity of water, and be of the temperature of the mother's milk. Not too much must be given to the child at once, but at intervals, and as often as it manifests a desire for it, by seeking, playing with the tongue, sucking with the lips, or by crying.

When the child is healthy and growing, we may change

the articles of food. The best by far, is a pap of well baked biscuit or wheaten bread, boiled in water. This pap is to be prepared in the following manner:—Take pounded or grated biscuit or wheaten bread, boil it in half a pint of warm water, stir it often, until the crumbs are dissolved entirely; then add a piece of sugar, mix it well, and give the child, according to circumstances, from eight to twelve tea-spoonfuls, four or six times during the twenty-four hours; during the intervals, give the above mentioned drink of milk and water. Care must be taken that the pap is neither burned or smoked, and is always prepared a fresh.

By degrees, we may pass on to stronger articles of food; the time must, of course, depend upon the strength of the child, because sickly and weakly children require a more nutritious food than others. From the fourth to the eighth month this should consist of the same pap, described above, with this alteration that instead of boiling the biscuit or wheaten bread, in water, we may now use for this purpose, unsalted broth, made of veal, chickens, or pigeons; otherwise the preparation is the same.

To feed the child, we should use small wooden or silver teaspoons, which ought to be rather flat, not too deep. A second spoonful should not be given until, the first has been entirely swallowed. To give the child to drink, we should have one of these suckling glasses or baby-glasses, which may be had in every glass store.

At the end of seven or eight months we may give more solid food, the same as to the children, who have been weaned, but for drink, nothing but fresh water.

The articles of food which the child is to receive now, and which ought to be given at regular periods should consist, in the morning, of a soup, made of wheaten bread, to

which, when the child is weakly, may be added a small piece of butter and some of the yoke of an egg; or of pure boiled cow's milk, of coffee made of burnt acorns, barley or wheat, with soaked wheaten bread, which meal may be repeated at nine or ten o'clock.

At noon, a good, clear beef-soup, with bread boiled in it; things prepared from flour, rice or groats, or milk-porridge; and a piece of white bread at three or four o'clock in the afternoon. In the evening, the same should be given as at breakfast.

As soon as the child begins to walk, a small piece of soft, tender meat, of any kind, not too much boiled, roasted or fried, should be added to its dinner. It should accustom itself to take for its breakfast pure milk with black rye bread, and its dinner should consist as already said of some meat, or a simple and nutritive preparation of flour and a piece of bread.

On account of the rapid growth, and the very high power of reproduction, during the first years of life, the digestion of the food is much more rapid, and the chyle absorbed much sooner than in the grown subject; as a compensation, the child requires to eat much oftener than the man. We should, therefore, give the child food at fixed hours, without over feeding it; besides dinner, breakfast and supper, it should have, about nine or ten in the morning, and about three or four in the afternoon, some white bread and milk, butter or fruit.

How much a sufficiency of simple, natural food, of good quality, like this, contributes to the physical and mental development of the child, has been proved by thousands of examples, and it would be well, if this system of feeding were adopted generally.

Care should be taken, that the stomach be not over-

loaded, because this makes children weak and sickly ; regular simple food, on the contrary, makes them strong and healthy.

Irregularity in meals, want of moderation, the frequent use of sweets, have certainly a baneful influence upon the health of the child, and interfere with its physical and mental cultivation ; but just as injurious, if not more so, is the use of spiced or spiritous drinks, which, from misconceived love, or unfounded fear for its health, are given to the child. But, worse than all, is that mania, which still prevails in many families, and which arises from superstition or ignorance, that every time the child cries, it must have a dose of medicine : unfortunately, there are, among the host of physicians, some, who, instead of opposing this foolish and injurious idea, are themselves unreasonable, or from interested motives, base enough, to encourage and sustain it.

What I state here is true ; many years of experience as practical physician and accoucheur have furnished me with the proofs. There are, to this day, families enough, where every thing is done, to make a hospital of the nursery. Scarcely has the poor child seen the light of this world, and saluted it with a cry, when aunt, grandmother, physician, midwife, all want to know better than nature. Every time the child cries, a new advice is given ; the one says cold, the other warm, the third comes with camomile, manna or rhubarb. The one finds the child too thin and too weak, he wants to alter, and effect by his wisdom, what nature has failed to do in the womb of the mother : he bathes the child with wine and herbs, gives it very nutritive articles of food and strong drinks. The second says : the belly of the child is too large, make poultices of herbs, give it injections, a purgative. Now the poor infant cries night and day, the assistants pity the mother, that she cannot sleep, and the

paid nurse pities herself most. What is to be done? A decoction must be prescribed, which is to quiet the child, to make it go to sleep, that the grown persons can enjoy their rest; certainly it is quiet, it sleeps, that it may have the better cause to cry when it awakes. Then comes teething, some irruptions, perhaps the quinsy, if it is fortunate enough to live so long, and—the child dies.

Now every body blames the disease; but I say, the drugs did it; they undermined the health of the child to such a degree, that nature had not strength enough, to resist the disease properly.

According to the principles of nature and science, every thing we take, that contains no nutriment, but produces only temporary, exciting, weakening or other effects on the human organisation, is a medicine. As, therefore, it is not a dietetic substance, which the animal functions can appropriate, it requires a peculiar activity in the human body to meet the greater or less effect; for there is no specific remedy, which acts upon the disease, without at the same time effecting the whole state of the body.

When the child is sick, the nature of its organisation exerts itself to the utmost, to expel the morbid matter: the whole strength makes one effort to overcome the power of the disease, as is seen in the heightened temperature of the skin, the increased circulation of the blood, chills, heat and other symptoms. In consequence of these interruptions of its organic functions, the child cannot bear the usual food, as it wants the power of digesting it, and yet we require its vital power to overcome substances as foreign, nay, as opposed to the human system, as medicine is. This latter does not only operate against the sickness, but once taken, acts either dynamically and generally, or mechanically and locally. By this means the disordered functions are obliged,

according to the quantity and effect of the medicine, to divide their power and to struggle, not only against the power of the disease, but also against the unwonted effects of the medicine.

At every repetition of such injurious influence, the body is obliged to repeat the process just related, whilst its natural powers become weakened, to such a degree, that they can no longer resist the force of the disease, but consume themselves and sink rapidly. In consequence of the remedies given, particularly of powerful medicines, new phenomena appear, which but too often are looked upon by the physician as an aggravation of the disease. He now considers himself in duty bound, to prescribe other mixtures, sometimes changing the medicines, more than once a day, to overcome the same disease. And yet this disease has neither changed its form nor its character, only the phenomena of the re-acting power, have manifested themselves differently, according to the intensity of the medicine, which has been taken.

The internal organic power, with which nature has endowed man, tries to expel from the body all that is injurious. For instance: by vomiting, when the stomach has been overloaded; by inflammation, festering, diarrhœa, fever, &c., when metals, splinters, poisons, infectious matter, have entered the body. If now, the organic power is divided, and obliged to act, on one side, against inflammation and inhaled miasma, on the other side, against the swallowed strong medicines, nay, if besides, it is weakened by constant blood-letting, it is but too often the case, that the re-action is insufficient, and by too frequent efforts consumes its own power. The disease then becomes so powerful, that the functions finally succumb. If, on the contrary, the natural healing powers of the human body are stronger than the

cause of the disease, and that the medicaments used against the latter, do not interfere with the operation of the former, they will come forth from the struggle victoriously, and the disease must give way.

We should, therefore, by no means, be too quick with the use of medicine, particularly not with children, and never give them, without consulting an experienced, conscientious physician. We should be cautious how we employ, at the mere advice of old women, midwives, nurses and gossips, who are always ready with their counsel, tea, purgatives, injections, spicy, odoriferous fumigations, fomentations of aromatic herbs, of wine, or the like. We should consider that the weak, nervous system of the child is over-excited by such stimulants, and that, sooner or later, nervous attacks, convulsions, debility, disturbed sleep, cholic, indigestion, &c., are the consequences; whilst, with necessary rest and proper diet, the nature of the child alone would have sufficed to overcome the disease.

CLOTHING.

THE first object of clothing the infant, is to protect the navel-string from every violent tension, to sustain the perspiration, to counteract the external influences, and to maintain cleanliness. It should be done in the following manner, which is according to the dictates of nature:

After the child has been bathed as described, it should be wrapped in one or more cloths, and then be placed alongside of the mother, to have its first sleep, if the condition of the mother allows it. As soon as it awakes from its slumbers, it should be taken to a quiet place, which is properly heated, where the air is pure and the light soft,

and where the necessary articles of clothing have been put in order before-hand.

The first proper and natural clothing consists of a cap, in the form of a net, a strongly-knit bodice, a shirt with long sleeves, descending to the heels, which should be tied behind; a small linen handkerchief, which is put on the child over the shirt, in such a manner as to cover breast and neck; and of a linen napkin, which encloses the abdomen and thighs, the two ends of which are placed under the perinæum; a four-double fine linen pad, and an elastic bandage of this form



The parts from *a* to *b* consisting of some elastic substance, best of India rubber; the centre piece *c* of a five inch wide ribbon, and the two ends *d* of diapered, three inch wide ribbon, which, at about four inches from both ends, should be provided with three tapes a quarter of an inch wide.

When all this is ready, the child is placed upon a table, upon which there is a pillow. After the nurse has convinced herself, two or three hours after the birth of the child, that the navel-string, which for the moment was wrapped in cloths, is no longer bleeding, the same should be tied once more, the end be covered with fine burnt rye flour, be enveloped in a small fine rag, pressed close to the abdomen, and be covered with the above named square pad of linen; after which, the belly-band is put on so that the middle of the wide part *c* fits upon the navel-string, and the two pieces, *a b*, upon the sides of the abdomen, in such a

manner that the two end parts, which towards the loins become narrower, cross at the back, without making plaits or pressing the child, when the two terminating parts *d*, the one on the right, should be brought round to the left, and the one on the left to the right, towards the centre of the abdomen, so as to cover each other exactly at the navel, where, after having been tightened, they are fastened by the three pairs of tapes, tied in bows, exactly over the linen pad.

This kind of belly-band or navel-band possesses the following advantages over all other kinds, it is easily put on, preserves cleanliness, and keeps the pad in its place; in consequence of its elasticity, it does not interfere with the respiration of the child, nor with the play of the abdominal muscles; it also compresses the abdomen uniformly.

When the belly-band has been fastened, we place the child upon the napkin, which has been doubled corner ways, in such a manner, that the centre is under the seat, and the doubled edge under the loins, we draw the two unfolded points, which lie over one another, through the legs, and turn them up over the lower part of the belly; we then turn the two ends of the napkin, which project on each side, over the thighs inwardly. This napkin serves to keep the child clean. Next we put on the three cornered handkerchief, which must be held in readiness, bringing it from behind over the chest and back again, over this we draw the shirt and then the bodice, which must reach below the navel, observing that the sleeves of the shirt must be turned over those of the bodice. Both the shirt and bodice are to be tied behind, but in such a manner, that the knots or ties do not hurt the child; after this, we put on the cap, which we fasten with a broad ribbon, and then place the infant in bed. The bed is kept together, either by one

broad band or by three ribbons, that the child in a manner is enveloped in it, yet not too tight, so as to leave its motions unimpeded. The hands, from the very beginning, should be left free, and not be wrapped in flannel, canton-flannel, woolen or cotton; it only effeminates the child, makes it too sensitive to all external impressions and leaves its skin too delicate.

Unfortunately we find still among the higher classes, where extravagance, splendor, and the love of fashion prevails, either from ambition, from prejudice and custom of the grandmothers and aunts, or from the folly of the midwife, who puts on the garb of wisdom, the habit of lacing the children tightly, during the first few months of their life, although in the narrow space of the womb they were unconfined. We still see frequently a mode of dressing the child, which is diametrically opposed to that described above, and the most uninitiated observer will perceive the evident torture of the infant, by its vain endeavors to free itself from its bonds, by its anxious and pitiful face; he will hear it, in its appealing mournful cry. In spite of all this, and notwithstanding the anxious and pitying looks of the mother, the infant which has scarcely come into the world, is placed upon the rack. Under pretext of preserving it from ruptures at the navel and at the groin, (*hernia umbilicalis* and *hernia inguinalis*), a two fingers wide bandage, the edges of which cut deep into the tender soft fat of the child, and rolled from ten to twelve times, and sometimes oftener, firmly round the belly, in such a manner that it is difficult to introduce a finger between the bandage and the skin. How, in this situation, are the weak muscles of the child to expand? But this is not enough—the circulation of the blood is only interrupted in one place, that it might be general, they wind and fasten a second, some-

what wider bandage, over the shirt, handkerchief, perhaps another canton flannel wrapper, a large piece of flannel, and a mass of cloths rolled round the legs, which are stretched out by force, and that the head and neck may not be spared, the former is frequently covered with a cap, which is richly ornamented with beads, lace and ribbons, which do not allow the poor little sufferer to lay down his head when at rest, without hurting it. Now the chin-band, (chin-stays), through which the dribbling cloth is passed, is fastened under the jaw, the dribbling cloth drawn down, and fastened to the body. By this means every motion of the head, either sideways or backwards, is made impossible. Yet all this does not satisfy them, when the child has been thus far metamorphosed, they forcibly stretch out the arms as they have already done the legs, which before birth have been in a curved position, and press them firmly to the body by means of a bolster or wrapper; over all this, they put, what is called the swaddling bandage.

Thus laced together, the poor creature, whom a wise providence allowed free motion in the womb of the mother, by means of the waters, unable to move a limb or to draw breath with freedom, swaddled up to the mouth, eyes and nose, like an Egyptian mummy, and as stiff as a stick of wood, is handed over to the mother, who cannot give way to her delight, because she is frightened by its uneasiness, by the increased redness of the face, and by its plaintive cry.

Should not every tender, loving, and reflecting mother be frightened, and tremble, when she sees the horrid squeezing of her child, when she perceives its anguish and uneasiness, when she considers its former existence, and compares it with its present state, produced by this lacing.

The mother and every other reflecting individual must

see, and every physician will confirm it, that by the pressure of the bandages and swaddling clothes, breathing, which has scarcely commenced, is checked, preventing the proper circulation of the blood, which strives to return to the former channel, pressing towards the parts around the navel, and frequently causing bleeding out of the navel-string. There are instances on record, that these were not observed until the pale face of the child betrayed the secret, when, before the careful packing up of the infant could be undone, the loss of blood had exhausted the baby, or, perhaps, killed it. Although we must confess that these extreme cases are rare, yet the consequences which this tight swaddling, this mummifying has, sooner or later, upon the health and life of the child, are too important, as that they should not merit the full attention of every mother and of every father of a family.

By its entrance into this world, where he is a stranger, the little delicate creature, which does not terminate its growth until much later, begins a new life: by the first respiration and the new mode of obtaining food, a new epoch begins in the process of sustaining life; wherefore, the infant must be exceedingly sensitive to all external impressions. The eye, the ear, in fact all organs of sense, but in particular, the skin of the infant, is very irritable, for in its former world, in the womb of the mother, the child came in contact with nothing but the waters and the delicate membranes of the womb, and was, moreover, covered with the cheesy coating.

Now the child comes into the world, and with the first breathing of the air, commences the function of the skin. But how is this to proceed, when the heavy load of clothing prevents all motion, and their tightness excludes every approach of atmospheric air, every wholesome perspiration,

and does not allow the small capillary vessels to expand, thereby limiting the circulation of the blood in these latter ; the consequences of which is, that the child is made uncomfortable, and the foundation of a host of diseases is laid.

Besides the suppressed functions of the skin, and the interrupted circulation of the blood, the child now is attacked by a feeling of giddiness, and tortured by an itching, caused by the closely adhering seams, bandages, strings, &c. ; this produces a very troublesome feeling, which, as the tight bandage prevents the child from breathing is heightened to actual anguish. But the poor creature cannot speak ; its terrified pitiful faces no one will understand, and at last, it has, by instinct, recourse to screaming. This, too, is misunderstood, and the poor infant is sometimes even blamed for it by its unreasonable tormentors. So it happens, not unfrequently, that whilst the tight swaddling is continued, not only the germ of after disease is planted, but apoplexy is brought on, terminating the life of the child, which has scarcely commenced.

If mothers would only look at the animals, how they try to preserve their young from every pressure, they would be obliged to confess, that exactly through the free motions of the young animals, they are protected against being crippled, hump-backed, lame, &c., and they would see, also, that they are not liable to ruptures at the navel, in the groin, or thigh, a misfortune to which our delicate children are very subject. For this we should blame nothing but circular, or navel-bands (belly-bands), which old custom and deeply rooted prejudice keep in general use, as they, instead of preventing ruptures at the navel, have, in consequence of their unusual pressure, exactly the contrary effect ; a thing which is very natural, for, if the bandage be tied too loose, it will, during the struggling and screaming of

the child, either glide from the middle of the belly upwards, towards the chest, the thinner part of the body, or downwards, towards the pelvis.

In the first instance, the chest is confined by the bandage, and the lungs are interrupted in their free expansion; they try to gain space below, where the intestines are pressed downwards against the free and yielding abdominal ring, into and through which they penetrate, whereby ruptures and cases of prolapse occur in other parts. In the second instance, where the bandage slipped down to the pelvis, it compresses the lower part of the abdomen and thighs, thereby forcing the intestines upwards, towards the centre of the anterior part of the abdomen, that is towards the unprotected, not yet quite closed, umbilical ring, and causing umbilical ruptures, at the same time dragging and lacerating the navel-string very considerably, which may lead to inflammation, festering, and even to hemorrhages, which endanger life.

The mother undresses herself, and causes herself and her grown children to be undressed, when they want to go to rest; the greatest criminal may take off his garments, when he wishes to lie down, and stretch and bend his limbs as he pleases. No torture, of modern or ancient times, shows us an instance, where the criminal was obliged to remain for hours, weeks, nay months, night and day, with his arms stretched out and pressed to his body, and wrapped and laced in linen, or feathers from head to foot: but the delicate, fragile being, the new born infant must suffer this martyrdom, as long as it is thought necessary to continue this over-lacing. It resists this violence, it struggles, it screams, but nobody will listen to its sufferings, nobody understand its terrified looks, its cold sweat, its redness, its oppressed breathing; it is always wrapped up again,

and the displeasure of the nurse increases, she draws the bandages so much tighter around the poor creature, and rejoices, when, after it is done, the child, exhausted by its struggles, stops crying or falls into a dose, from which its pains will awaken it but too soon, when again, its cry will commence. Now every body is ready to help, the mother in vain offers the breast, the nurse comes with tea, a third person offers eau de Cologne, but nobody thinks of freeing the poor infant from its wrappings, and when it is done, it is only to see whether the child is clean. As soon as the bandages are loosened, the child becomes quiet. But nobody attributes this silence to the natural cause, but as soon as it has been cleaned, or the nurse has convinced herself that it is clean, it is immediately packed up again in its tight covering, and should it scream again, rewarded by a couple of thumps upon the pillow.

If those who adhere to this old custom and prejudice with so much tenacity, would only suffer themselves to be laced and wrapped up for one day, in the same manner as the child is wrapped up, they would learn what torment, what sufferings they prepare for the poor little innocent; they would understand its cry, and become convinced that the result of this compression must, sooner or later, prove injurious to the constitution of the child.

There is not a single reason, which speaks in favor of this cruel enveloping of the children; for to protect them from injury they have the mother, and the nurse, or child's maid; and that they may not hurt themselves, nature has made the wise provision, that the infant as well as the animal, is notified by pain to discontinue any motion which is injurious. Why are the nails of the infant not to be cut, with which alone it might hurt itself? In short, idleness and carelessness can be the only excuses for this method of

dressing the infant ; it enables the nurse to throw it, at any time, into a corner, and leave it there without paying any attention to it. No other animal leaves its young under these circumstances, only man, the noblest of all, and particularly the feeling woman, puts her child to these tortures, notwithstanding her boasted maternal affection.

We may continue to dress the child in the before-mentioned loose clothing, until the third month, and during sleep, loosen even this, as much as possible. Only when the child begins to show, by voluntary attempts at rising, creeping and standing, the progress, which the muscular development has made, we should put on a free easy dress, suitable to its constitution. This ought to consist simply of the above described shirt, bodice and petticoat. As soon as there is a sufficient quantity of hair on the head, it may be left uncovered in a room of a moderate temperature. When, during fine dry weather, the child is taken in the fresh air, a thing which is much to be recommended, it should wear, over the above-mentioned garments, an overcoat, which, in warm weather, should consist of cotton or linen, and in cold weather of woollen stuffs, and which must descend far below the feet, on which we should put shoes of cloth or sheep's wool. Besides this, a large shawl should be thrown over the head. When the child begins to walk, to which it should not be prematurely forced by go-carts, leading strings, and still less by leading by the hand, but simply by assisting it under the arms, it should have on, over the shirt, in summer, a gown of cotton, muslin or linen ; and, in winter, one of some woollen stuff, fastened loosely round the body by a belt. A handkerchief is tied over the breast, in such a manner as to leave the neck exposed, and when we take it out of doors, it should have on a hat of straw or of cloth, and its feet should be covered

with shoes. As soon as the child commences to creep about on the floor, a floor cloth should be spread out for it, as well in the house as on a grass plat. When the child begins to stand up and walk, the above-mentioned shoes should be worn.

The same kind of dress should be continued until they are five years old ; as children, at this age, are more out of doors ; the girls, in particular, should wear, besides the shirts, pants, according to the season, of cambric or woollen stuff. When the weather is cold and damp, an overcoat of woollen, or of wadded silk, should be worn over the rest of the clothing. The shoes, instead of with felt, should be soled with leather. The wearing of stockings, by boys, until they are eight, and by girls, until they are five years old, is not only a useless and excessive precaution, but is even rather injurious, because, if they are not often enough changed, they will produce soreness of the skin, and erysipelas.

By wearing the said light clothing, by breathing a pure fresh air, by free exercise, and by the recommended washing and bathing, the skin of the child is strengthened, becomes less sensitive to external impressions, and gradually accustoms itself to a cold temperature. The child is, therefore, less exposed to disease, particularly to catarrhs and eruptions, and when attacked by them is more rapidly and more certainly cured on account of the increased power of reaction. Warm clothing, on the contrary, makes the skin delicate, flabby and flaccid, and produces the contrary effect.

To make the children hardy, is not the only advantage of clothing them in this manner, but they gain, when compared with children brought up differently, in fullness, beauty, health, development of the organs of sense, and

of the limbs. Every one, no matter to what rank of society he belongs, can afford to dress his child, in the above described manner, whilst the rich and fashionable will be furnished by the invention of the milliners and dress makers, with the means of increasing the charms of their children, even in this simple attire, by the richness of the stuffs, and the beauty of the style and cut.

Having now described the advantages of this simple dress, I consider it my duty to point out the disadvantages of a piece of female attire, which has become so injurious and destructive to the fair sex, I mean, the corsets. In consequence of a vain and foolish error, that the smaller the waist of a young woman, the greater her beauty, the majority, notwithstanding constant warnings, are induced and frequently encouraged by their foolish mothers, to force their chest from infancy into a cuirass of whalebone, provided in front with a steel busk, without considering the pernicious consequences of this habit. The chest, confined by these corsets, is not only prevented from performing the functions of respiration properly, whilst the lungs are forced upwards and cannot expand, but it is also interrupted in its growth, whereby it becomes smaller, and is out of preparation to the rest of the body. The lobes thus compressed, are not capable of expanding sufficiently, and of receiving the blood which is carried to them in the quantities necessary for oxydation. This produces frequent congestion of blood to the head and the chest, which gives rise to periodical headaches, asthma, tedious catarrh, tubercles on the lungs, cough, accompanied by spitting of blood, and consumption (*phthisis pulmonalis*). The development of the female breast is prevented by this constant compression, the lacteal vessels and ducts are not only prevented from expanding, but actually contract and finally become impassable,

wherefore among the higher classes, we find so many ladies, who in consequence of defective formation of the breasts and of the nipples, or for want of milk, are incapable of suckling their children, and so many, who suffer from pulmonary affections. In the same manner, as by the violent lacing of the upper part of the stays or corsets, the organs of the thorax or chest are forced upwards, so by the lower part the intestines of the abdomen are forced down, towards the pelvis, and by the constant painful covering of the abdomen, a strong perspiration is sustained. The walls of the abdomen, as well as the ligaments of the uterus relax, which frequently causes, what is called, a pendulous belly. Besides this, the pressure of the intestines into the pelvis induces congestions in the lower part of the abdomen, and consequently, hysterics, spasms, irregular menstruation, green sickness (chlorosis), relaxation of the uterus, whites, miscarriages, swelled feet, etc., diseases, which, both with mothers and young women, terminate either in sudden death, or protracted sickness.

Oh! that mothers and daughters would take an example by such cases, of which they will find instances in every family, and instead of this coat of mail wear a simple bodice, seven or eight inches wide, made of India rubber, without any whalebone or iron busk, which can be fastened to the body of the dress.

EXERCISE.

As in the first months of its existence, the growth of the child is far more rapid than afterwards, the body requires also the greatest compensation for this effort of nature, wherefore it remains during the greater part, in a state of repose, from which only hunger awakens it. But the more the body of the child increases in growth, the longer become the intervals, during which it does not sleep, and which later, it fills up with exercise and play. For this purpose the child should have a few play things, with which it may amuse itself in the beginning in the bed, and later, upon a carpet, spread on the floor. On fine spring, summer and autumn days, it may exercise in a free, open, grassy and shady spot, and enjoy itself to its heart's content, and by stretching out its arms and feet, bending forward, extending head and body, tumbling about, grasping at things and trying to raise them, creeping, trying to rise on hands and feet, or by the assistance of some near object, attempting to get up, first practice its growing strength.

By this means the bones obtains their proper position, the muscles and sinews their requisite strength, and the child grows both in body and mind, so much so, that in the fifth or sixth month, such a child is able to keep itself erect and to move about, for we must not imagine that the transition from lying to walking should take place suddenly, nor that we should not let the little creature out of bed, or out of our arms, before he can walk; this is a mistake, for we can only attribute the early standing and walking of a child to having allowed it to exercise its strength at will.

If the child is to acquire strength, the free play of its muscles, constant exercise and uninterrupted activity, are absolutely necessary ; in our modern nurseries, where every breath of fresh air is excluded, where the wholesome air is tainted by perfumes and fumigations, where every breath, every motion of the child is watched, with the eyes of Argus, and it is allowed no exercise, the acquirement of strength is impossible.

If we were to compare a child, which, although begotten by young and healthy parents, has, at the age of three months, in consequence of the above described mummification, not yet obtained the free use of its limbs, can scarcely keep its head erect on its shoulders, sits squeezed and doubled up in a chair, made on purpose, in such a manner that the bones of the pelvis obtain an improper position. I say, if we compare such a creature, with a child of the same age, belonging to one of the savage tribes, or to one born on the Alps, how great would be the difference ! And should this not teach us not to attempt to tinker at the works of nature, but to strive to rear our children more in accordance with her laws, that both soul and body may not be lost.

We have, however, no occasion, to seek for instructive examples in the system of rearing children among savage nations ; we can find plenty of them in the poorer classes, particularly among the inhabitants of the mountains or highlands. For with the latter as well as with the former, the mother leaves the child entirely unrestrained, with the exception of putting on a navel-bandage ; she takes it with her into the fields, lets it creep about as it likes, upon the bare ground, without any shoes or stockings, nay often allows it to run about in a mere gown or shirt. The consequence of this is, that these children, both in their youth and old age,

can brave every kind of weather and every kind of hardship, that the young men can perform the hardest kind of work, under the greatest deprivations, whilst one of our effeminate, city-reared dandies, sickens at the smallest blast of cold wind. If I wanted to enumerate all the errors and sins, which are committed in the rearing of children, the space allotted to this book, would never suffice. I shall merely notice, what must be forever banished from the nursery and the care of children, if they are to increase and grow in body and mind, the pride of their parents and of others.

First, away with the wrapping of the child in so many swathes, swaddles, bands, and bandages, which, as I have shown most fully, must injure the constitution of the child.

Secondly, burn the child's chair—the development of the muscles of the child is very slow, and the child is forced to sit much too early. It can scarcely keep its head erect, and if, therefore, it rests its chest against the front-piece, it may easily become crooked, particularly, if the child is not strong. In consequence of the round opening in the chair, into which the breech is forced, the delicate bones of the pelvis are easily bent into an improper position, for which, in particular, delicate girls are sure to suffer in their first confinement, if not sooner. Besides, these chairs, on which children are forced to sit, easily give rise to accidents; the board in front may be displaced, and the child fall out on the floor, breaking its bones, suffering from concussion of the brain, and perhaps becoming lame. All this will be prevented by allowing the child to move about upon the ground, unrestrainedly, as has been mentioned before, and putting it to sit only, from time to time, when of its own accord it tries to do so. This, in the beginning, may be done, whilst the child is being fed; it may then be placed

in the lap of the mother or nurse, and supported by the arm.

The third evil is the go-cart and the leading-string, for thereby the chest is placed in a hanging position, and is also compressed. The body, in a manner hangs on the go-cart or leading-string, whereby the shoulders are pushed upwards, which, as well as the flexible spinal column, may easily become crooked. The soft bones of the legs bend under the heavy-headed or thick-bellied child, and turn either inwardly or outwardly, the walk of the child, from the circular swinging motion, becomes tottering, uncertain, so that, when two and three years old, the poor little creature is not able to step over the most insignificant obstacles, without the assistance of its nurse. If, besides this, the nurse is in the habit of taking, or dragging the child by one hand, dislocation, spraining and ruptures may be the consequence.

Therefore, let the children begin early to move about the floor by themselves, and when their strength increases, they will begin to walk almost without any assistance. If, however, the mother is too much afraid, that the child may fall, let the child's maid or nurse cower down upon the ground, a few paces from the child, and let her make the child run towards her, so that she can catch it, if it should stagger in the least; this should be done by placing both hands under the arms of the child. By degrees this distance must be increased, and at last the child may be led by one hand, whilst with the other it holds on to the objects about the room.

As the senses become more perfect, the inclination to play arises in the child, which first manifests itself by the motion of the hands and feet, therefore, it should always have its hands free. The more the powers of the organs increase,

the more the child, from the mere looking at the surrounding objects, proceeds to handle them, and to play with those, which its hands can reach. It soon begins to show a preference for those persons who are always with it, tries to lisp the words, they utter, until it produces single sounds, which, by degrees, become perfect words.

At the age of eight years, the children ought to be instructed in gymnastics, because by this means not only the physical, but also the mental faculties improve, for we do not seldom find, that where attention is paid to mental cultivation only, it proceeds very slowly, mechanically, and requires great exertion, under which the body not seldom sinks. But these gymnastic exercises are not only necessary to unfold the powers of the body and mind in youth, they also in after-life are of infinite service under different circumstances.

One of these, as we have mentioned before, is, undoubtedly, swimming, which the boys, according to their constitution, should, however, not begin until the eighth or tenth, and the girls not until the tenth or twelfth year. Important and necessary, as bodily exercise is for the before mentioned purpose, we should always pay attention, 1st, that these exercises are not always the same; 2dly, that they are not undertaken too early, and not continued too long, because only, manifoldly varied motions of the limbs and muscles can be beneficial, whilst too early, too long continued, uniform exercises always become injurious, the ends of the bones in infancy being still cartilaginous, and when the muscular power is small, subject to bending, inflammation, and swelling.

Uniform motions, for instance, constant walking, fatigue single parts too much, and give rise to inflammation in the articulations (joints). As to dancing, both young men and

young women are carried away by the excitement, and do not feel the determination of blood towards the lungs, want of breath, and oppression on the chest, until they are prevented from continuing to dance, the consequences of which are frequently, hemorrhage, and inflammation of the lungs, coughing up of blood, tedious catarrhs, asthma, etc., and with young females, who lace tightly, even death.

DISEASES OF CHILDREN IN GENERAL.

No medical subject has, within the last fifteen years, received so large a share of attention, as the diseases of children. Much good has resulted from this, as far as the diagnosis of these diseases is concerned; but for their treatment, there remains still a void, which can only be filled by a simple natural method, which agrees with the child's development, a subject to which, unfortunately, but too little attention has been paid.

I am far from capable of filling this great void, and can only express the heartfelt wish that others, by proposing a correct natural treatment, may succeed in arresting the great mortality and sickness of children. I can do nothing towards it, but contribute my twenty-two years' experience, in the most conscientious manner.

By the name of DISEASES OF CHILDREN, I understand, in the first instance, such as are the result of the peculiar physical constitution of the child, to which I reckon those, which it brings with it into the world, namely: defective conformation of the tongue, harelip, dropsy in the head, induration of the cellular tissue, webbed fingers, and the like. Next those which make their appearance soon after the child is born, as: inflammation of the eyes, diseased al-

veolar processes, hydrocephalic affections, frequent inflammation of the trachea (tracheitis), bronchitis, atrophy (emaciation), scrofula, rachitis, crusta lactea, etc. Secondly, those diseases consequent upon the period of development, in which the physician ought to pause before he interferes with medicines, because thereby the whole process of development may easily be interrupted, whilst the diseases, under proper diet, exercise, fresh air, and other natural care, would disappear soon and with certainty.

The third are acquired diseases, which I shall try to represent one after the other, in relating the history of actual cases, which I have treated in a manner agreeable to nature, in order to make known their method of treatment, and the success which has attended it.

APHTHA OR THRUSH.

THRUSH is a disease which occurs very frequently with new-born infants, and consists of numerous minute vesicles, resembling white millet seeds, which are situated in the mucous membrane, mostly in the mouth and the gullet, and thence spread through the throat over the whole alimentary canal down to the anus. These vesicles, which frequently exist in great masses, open and eat deeply into the mucous membrane, which at those parts appears white, surrounded by inflammation, and spongy. By this means, it becomes very difficult for the child to suck, to swallow, and even to digest, and when the thrush becomes excessive, it is almost impossible, in consequence of which the child falls away very much. It is uneasy, sleeps but little, tosses about, takes the breast of the mother only for a short time, and screams incessantly, which often induces the mother and

the nurse to take this disease for one entirely opposite; wherefore it is advisable, not only as soon as the disease makes its first appearance, but at all times, to examine the mouth daily, in order to take the necessary steps as soon as the first symptoms begin to show themselves.

The causes of this common evil are: uncleanness, improper diet during pregnancy and suckling, too much acidity in the first weeks, want of washing and bathing, and of fresh air; damp, low dwellings, sucking-bags, etc. On first perceiving the existence of the evil, we should try to remove the cause, by bringing the child frequently into the fresh air, and if that is not practicable, by airing the nursery, by bathing the child twice a-day, in a temperature varying from 18° to 26° Reaumur ($72\frac{1}{2}^{\circ}$ to $90\frac{1}{2}^{\circ}$ Fahrenheit), accordingly, as the child is weak or robust; too much heat would make the evil more complicated. The nurse or the mother should, frequently during the day, take a linen rag, steep it in spring or hydrant water, wrap it round the finger, and wipe the mouth of the infant. In case the thrush appears also in the anus, injections of water of from 10° to 12° Reaumur, ($54\frac{1}{2}^{\circ}$ to 59° Fahrenheit), should be given.

This treatment, more or less modified, has always cured this disease in a few days, without giving any aperient or other medicine; but I invariably directed my first attention to the proper regulating of the diet of the mother or of the nurse.

IMFLAMMATION OF THE EYES.

ONE of the most important and most dangerous diseases of children, is the inflammation of the eyes (ophthalmia), because next to the Egyptian ophthalmia, it causes most frequently, the loss of sight, and according to my own observation, and that of other physicians, is an evil, which seeks out the huts of the poor, and fills two-thirds of the institutions for the blind.

The inflammation of the eyes, as well as the inflammation of the eyelids, the purulent eye, and gonorrhœal ophthalmia are diseases, which, at the slightest neglect, threaten to annihilate the sight, and which partly are brought into the world, partly obtained in passing through the vagina, or soon after being born, and of which the causes are generally to be found in the mother, particularly that of the gonorrhœal ophthalmia. The causes which produce this evil, during the excessive activity of the process of formation in the eye of the child, when every exciting influence is followed by a most rapid development, are the female gonorrhœa, or malignant fluor albus, and the innocent fluor albus, (whites), in which cases, the child is infected, whilst the head is passing through the vagina. Also, the long compression of the head during labor, and violent delivery with instruments, whereby frequent congestions towards the eyes are caused; too strong a light, the cleaning of the eyes with the sponge with which the child was first washed, and which still contained some of the mucus, or washing the eyes with the water; a nursery, the air of which is infected by being pent up, and by malignant exhalations.

Among the above enumerated causes, the worst always

remains, when it arises from actual gonorrhœa, bad or malignant leucorrhœa; in this case, the affection generally makes its appearance from the third to the seventh day, and if it is not immediately recognized, and a proper treatment commenced, in consequence of the rapid progress of formation in the child, the transparent cornea (*cornea pellucida*), is destroyed in a few days by suppuration, and the child is blind for life.

To prevent this misfortune, or at least to impede the rapid progress, we would advise all midwives to clear the vagina of all women, who are affected with leucorrhœa, a few moments before the child comes into the world, with clear luke-warm water, and to wash the eyes of the child, as soon as born, carefully, with a sponge dipped in cold water, and kept in readiness for that purpose, which should be repeated several times a day.

Particular care should be taken to avoid the other causes, above mentioned, as much as possible.

After difficult labor, during which the head was a long time compressed by the small pelvis, as well as after delivery with instruments, the nurse should immediately apply cold fomentations around the head, which, when the eyes begin to get red, should be placed also over these organs. These fomentations must always be made of fresh, cold, clear water, and must, by no means, cause any pressure, wherefore, they should be made of old linen, folded three or four times.

Every time the cloths get warm they should be changed. If, in spite of the constantly applied fomentations, the lids of the eyes begin to stick together, add to the water one quarter of pure, skimmed, sweet cow's milk. In this case the fomentations are not renewed so often, care being taken, however, that the cloths do not get dry.

When the skin is very red, and the head hot, and specially when, with the affection of the eyes, thrush makes its appearance, besides the fomentations over the eyes, cold fomentations over the whole head should be applied, and the child be bathed, two or three times, every twenty-four hours, in water of 18 to 20° Reaumur (72½ to 77° Fahrenheit.) The mother should keep a strict diet, give the child the breast as seldom as possible, but let it often drink of luke-warm water and sugar.

HISTORY OF THE DISEASE.

Anne Streit was born on the 9th of May, 1842, perfectly healthy, stout and full grown; the father was in perfect health, but the mother weakly, scrofulous, and of a pale, puffed-up complexion. The parents, as well as the midwife, asserted to have perceived no trace of sickness, generally, nor during the first five days of its existence, any affection of the eyes. Not until the fifth day, in the evening, did it appear, that the little girl had become somewhat shy of light, and on the sixth day, in the morning, and later, after every nap, that the lids of the right eye were adhering partially, which soon, also, appeared in the left eye, so that, on the eighth day, the lids remained convulsively closed nearly the whole time, and tears frequently escaped from the eyes, which afterwards made the cheeks red. On the ninth day, the nearest physician was called in, who, notwithstanding leeching, purging, and the application of eye-water, could not check the disease.

On the fifteenth day after the child was born, therefore, on the tenth day, after the commencement of the disease, I was called in, when I found besides considerable jaundice, a generally heightened temperature, particularly in the head,

both eyes closed, the lids, which, to the orbital margin were swelled, œdematously (watery), were glued together by a yellowish crust, and the cheeks excoriated from the flowing tears. On forcibly opening the eye-lids, both the conjunctiva palpebralis (lining membrane of the lids), and the conjunctiva adnata (investing membrane of the eye-balls), were inflamed, flesh colored and swelled, and between the lids of both eyes there was an accumulation of yellow pus; the pellucid cornea, as if covered with a film, and interwoven with a fine reddish net, but the crystalline lens darkened, a visible exacerbation taking place twice a day.

Application of a pad, of fine linen, was made to the head, and of two smaller ones to the eyes: they were changed as often as they became too hot, the whole child was wrapped in cloths, which had before been steeped in cold water and then wrung out well, those were changed as often as they became dry; after which, the child was placed, every time, for six minutes, in a bath of 16° Reaumur (58° Fahrenheit), and already, on the third day, the rapid progress of the disease was checked. This treatment was continued, and when the inflammation and fever had abated, the fomentations and enveloping were applied less often. In six days it had recovered the faculty of vision entirely. During the time of this treatment, the eyes and cheeks of the child were washed, as often as possible, with luke-warm milk and water; the mother was kept on strict diet—the breast given to the child only four times a day, rather sparingly, and luke-warm water, with sugar, allowed as a drink.

TONGUE-TIE.

As soon as the child has been washed in the first bath, and the mouth has been cleaned, the nurse should try immediately, whether the child is tongue-tied, by inserting the little finger under the tongue, trying to lift it up. If this cannot be done, without any difficulty, the child is tongue-tied, which can also be seen every time it cries. By means of the frænum (band or ligament) the tongue may be partially or entirely fastened to the apex (point), by which, crying, and particularly sucking and swallowing, is made almost impossible.

In this case, we should immediately send for a skilful operator, or surgeon, and have the tongue loosened. But in cases where it is only partially fastened, does not interfere with the functions of the child for the moment, and might, only later, prevent its speech, we may postpone the operation, trying from time to time to push back the ligament with the little finger, round which a strip of fine linen has been tied, and which has been steeped in cold water; generally this is successful, after a while. But, if in eight or ten weeks, this cannot be effected, we must, also, have recourse to the operation. After it has been performed, the mother or the nurse should, immediately, give the breast to the child, and in case the bleeding is considerable, she should place the finger, enveloped with a wet linen rag, as described above, on the bleeding spot, until it stops entirely.

THE TAPE-WORM.

WE seldom find a man, who, for the whole course of his life has been free of worms. They always take their seat in the digestive organs and intestines, and children are particularly troubled with them.

Of the many kinds of boarders which dwell in our intestines, the tape-worm is the most dangerous, particularly during the tender age of infancy; not only because it is the largest intestine worm, but also, on account of its motion, its rapid growth, and because it deprives the child of too much of sustenance, and of the mass of the juices, for its own support. The consequences of the presence of the tape-worm are: colic, vomiting, spasms, epilepsy, decline, and even death. These attacks, in conjunction with the effect of the so-called *Drastica Roberantia*, and other medicines, consume the vital powers, or in the most favorable case, leave behind constant sickness.

In my experiments of treating different diseases with water, I became convinced that, also, in cases of tape-worm, it possesses a sanative power, because, without any further application, it drives off or kills and dissolves the worm. Out of many cases, which I have treated since 1828, I select the following:

David Klein, a child eight years old, of weak limbs, delicate and sensitive, of scrofulous appearance, possessed a determined worm physiognomy. The boy had suffered for a year of colic-like cutting in the bowels, which was to be allayed only by a couple of cups of warm milk. After some time, when several antidotes had been taken, and some maw-worms had been passed, symptoms of tape-worm ap-

peared, against which war was declared in different ways, but in vain. Three months after this, the boy was introduced to me. His face was puffed up, of an earthy color, the belly high, hard and painful to the touch; the other parts of his body, notwithstanding a good appetite, much emaciated, his whole appearance indicating great suffering; slimy diarrhœa was succeeded by sudden vomiting, after which the patient was well for a few days.

After having confined his diet to pure fresh milk and acid fruit, I ordered a four-fold broad bandage, which had been steeped in cold water and been wrung out, to be worn permanently around the whole of the abdomen, over which a second dry one was to be placed. The bandage had to be changed whenever it commenced to get dry. Further, I had the boy enveloped every morning and every evening in a wet linen sheet, not wrung too much, and let him lie in it until perspiration appeared. I then had him put in a bath of 80° Reaumur (50° Fahrenheit), until chills came on, and had his feet and lower part of the abdomen well rubbed, while in the bath. After the chills appeared, the boy was taken out of the bath, and, in the beginning, half a gallon, later, three gallons of water quickly poured over the lower part of the abdomen, so that the thin ray touched every part of the walls of the abdomen; whereupon, after the wet bandage had been replaced around the belly, the boy was put into bed again, and covered well up. The first two days, I made the patient drink cold water, once; the third and fourth day, twice; and later four times a day, until vomiting ensued; observing, exactly that these drinks were always taken only an hour before, or after, the prescribed food, which was done in the morning and evening at six, and in the day-time at twelve o'clock.

Already during the first days, the cutting pains in the

bowels ceased; on the seventh day of this treatment, a rumbling commenced, which, at intervals, lasted until the eleventh day; on the thirteenth day, in the afternoon at three o'clock, the patient after pouring down the third glass of cold water, was attacked with vomiting, and at the same time with a violent inclination to stool, when after passing much tough phlegm, in lumps, finally the long-wished for tape-worm made its appearance, measuring eleven and a half yards in length. As the head of the beast had been passed, I allowed the boy to leave off drinking the water, and also omitted the affusions, confining the treatment to two hip-baths and the wearing of the wet bandage. As on the fourteenth or fifteenth day of the treatment, a number of small joints of the worm were voided, and no further bad symptoms appeared; I ordered the boy a nourishing meat diet, which was to be increased in quantity and in quality, after which, continuing the cold washing morning and evening, he was running about perfectly well three weeks after, and is still, eight years later, perfectly sound and healthy, without having ever been troubled again by his old complaint.

CROUP.

THIS is a disease by which children are frequently attacked, which often appears as an epidemic, and which, notwithstanding all that has been written about it, carries off, at least one-third of the children which are attacked. Among the writings on this subject, I cannot help recommending the work of Dr. T. J. Lauda, in Prague, on the hydropathic treatment of this malady; this work has not received the attention which it deserves; people still prefer

blisters, mustard and horse-radish plasters, leeches, setons, calomel, jalap, emetics, squills, digitalis, preparations of ammonia, copper and zink, and rather let their children die under the application of tracheotomy (opening of the wind-pipe), then save them without any medicines.

Any one who has had an opportunity of observing a child during the course of this disease, will never forget its appearance.

Just as easy is it to recognize the disease, when we know that it is a peculiar inflammation of the larynx and the wind-pipe, which, with the swelling in the organs situated there, principally of the mucous membrane, the accumulation of mucus, and the exudation of a peculiar skin called the pseudo-membrane, narrows, nay, often closes those parts entirely, through which respiration is accomplished. The symptoms of the disease are so distinct, that every practical physician will recognize at once, not only the disease itself, but also its stage. For the layman, for whom I principally write this work, it may be different. I shall, therefore, divide it into three stages, and represent these in relating the history of different cases, for the information of those who are not of the profession, whilst I add their treatment according to my own experience.

COMMENCEMENT OR FIRST STAGE OF THE CROUP.

The child of Joseph Weil, a weaver in Bilitz, a boy seven years old, fair, strongly built, well fed, and of rather an indolent temperament, was, in consequence of a cold, which he had caught in the snow on the 24th of January, attacked, first by chills, then by heat; as the latter increased, and the child began to get hoarse, the parents sent for me early on the 25th.

The mother informed me that the child had slept very uneasy, had often screamed, often asked to drink, but as she had been afraid that the cold might hurt, had given a warm marsh-mallow tea, which after a while, the child had rejected. After midnight the boy had become very hoarse, and the heat had increased to such a degree, that she had not been able to keep the child in bed with her, where it was in the habit of sleeping.

The face of the child, which was tossing about in the bed very uneasily, was puffed up and very red, the whole body, particularly the head, neck and face, burning hot, swallowing difficult, the larynx very painful at the least pressure; frequent painful hemming, accompanied by hollow, sharp cough which came on by starts, resembling a bark, and, from which, when I listened attentively, I concluded that the respiration was low, but somewhat sharp and hard.

After much persuasion, and after having represented to the parents, that by the application of cold water, the child would recover certainly and quickly, they at last consented to this treatment.

We placed the boy into a tub, whilst the skin was at a temperature of 32° Reaumur (104° Fahrenheit), and with a linen rag dipped in water of 6° Reaumur ($45\frac{1}{2}^{\circ}$ Fahrenheit), the aunt and I washed him three times in succession for a short minute, he was then, wet as he was, wrapped in a single linen sheet, which had been dipped in the same water and been slightly wrung, and was then put to bed and well covered up. On the head and neck cold fomentations, covered with dry cloths, were applied, which had to be changed every quarter of an hour, whilst the child, whenever it wished for a drink, was allowed to take small quantities of cold water.

During these proceedings the child behaved very impatiently, kicking with hands and feet, and crying most lustily; but when once enveloped in the wet sheet, it became quiet, notwithstanding the chill which soon commenced. The temperature of the skin had nearly fallen one-half, breathing become easier, and after half an hour, the child fell asleep and continued to sleep quietly for an hour and a half. As, during this time and afterwards, the heat of the body, and the heavy hoarse breath increased again, and I found the sheet to have become quite dry, the skin continuing dry, without any disposition to perspire, we placed the little fellow, without first washing him, in a second sheet, which was wrung as much as the first, and proceeded otherwise, as before.

As soon as the chill, caused by the wet sheet, was over, the child fell asleep quietly, the heat decreased perceptibly, breathing became more free, and at twelve o'clock, about two hours and a half after putting on the sheet, for the last time, a light perspiration appeared over the whole body. About half an hour after the commencement of the perspiration, the child awoke, was cheerful, and the hoarseness had so far disappeared, that it could be perfectly understood, when it spoke. But as the child got uneasy after this time, and would not remain in bed, the parents asked me to see it again. With the intention of leaving the child in the perspiration, I did not go until one o'clock, and found it bathed in perspiration, the respiration quite free, and the voice very little hoarse. Consequently, I did not fail to take the child out of bed, and to wash it, like the first time, but with water of 12° Reaumur (59° Fahrenheit), and very quickly, to wrap it wet in a dry linen sheet, place it into the bed again, and have the former fomentations around head and neck repeated alternately. Scarcely

was the little fellow in bed, when during an attack of cough, he threw up a quantity of tough, white mucus, and the mother told me that before my arrival, he had thrown up a similar quantity.

I left directions with the parents, in case the heat should return, to wrap the child again in a wet sheet, and when the perspiration had lasted about as long as the first time, to proceed as before. At my call in the evening, I learned that the child had perspired considerably, it was cheerful, and with a much increased temperature of the body; the swallowing was easy, and, as the child demanded something to eat, I allowed cold boiled milk to be given. I recommended the parents to continue the cold fomentation of neck and head, to give frequent cold drinks during the night and every time it should begin to be uneasy, and the heat should return, to wash in fresh water. The next morning, I found the child up, merry and well, and I merely prescribed diet, to remain a few days in the room, and to be washed two or three times a day in water of 15° Reaumur, ($65\frac{3}{4}^{\circ}$ Fahrenheit). The boy soon recovered, and on the fifth day, was running about in the street, as well as ever.

CROUP IN THE SECOND STAGE, OR STAGE OF PERSPIRATION.

Julia Shine, five years of age, daughter of a locksmith, in Neukirchen, a very pretty, fair haired, little girl, was attacked by violent chills, in consequence of a previous cold, which she had caught, by escaping from her mother, just after having taken a warm bath in the morning, and running out into the open air, when the Thermometer stood at 18° Reaumur, below the freezing point, ($8\frac{1}{2}^{\circ}$ below zero, according to Fahrenheit); to these chills soon came hoarseness. When the parents perceived this, they thought to prevent

the attack, by putting the child into bed, and giving it plenty of warm alder tea, and pictoral tea. As by this means the chills passed off, and after a few hours the child began to perspire, the parents thought that it would have no further bad consequences, and when the child wished to get up, allowed her to do so, and to run about the room; a few hours after she was again in the street. During the same night, the mother perceived that the child was uneasy, and that it coughed often; and, when these symptoms towards morning increased, and the temperature of the body rose, the mother thought that it would do good to produce perspiration again, by giving the child plenty of alder tea, and by applying leaven of rye flour to the feet, to diminish the heat. As I was told, the child drank with considerable reluctance, a quantity of this tea, but, notwithstanding this, and although the mother did not leave the bedside, and the child was well covered, the heat, hoarseness, and hollow cough increased constantly. Towards the morning, the child began to perspire slightly, fell asleep, but soon awoke again with a scream.

This state continued, with increasing heat of the body, and uneasiness, and as towards morning, the 15th of March, the child slept at short intervals, whilst, as they told me, it was breathing, with a rattling noise in the throat, and every time awoke suddenly from its sleep with a cry, was hoarse, and obliged to cough, whilst it wept and screamed, the parents were induced to send for me.

I found, although the body was hot and dry, that the forehead was covered with perspiration, that the face was puffed up, the cheeks, lips, tongue and throat very red, the look sharp, and the eye glistening with a peculiar brightness, the breath very hot, the pulsation of the external jugular vein and of the heart visible at a distance, the tempera-

ture of the body burning hot, at the same time, respiration very difficult; whilst the motion of the chest was very perceptible, accompanied by a fine, hollow, hissing, whistling tone, which could particularly be heard when the child inhaled.

Its sleep was uneasy, it tossed about, awoke suddenly during a violent attack of coughing, and screamed aloud. The cough was dry, hollow, barking and shrill, so that it could be heard far off.

I recognized the case as one of croup, in the highest stage of inflammation, with disposition to perspire. Considering the overcoming of the inflammation as most important, I immediately ordered, whilst I lent myself a helping hand, a quick washing with water of 5° Reaumur (43½° Fahrenheit); hereupon, wrapping the child in double wet linen sheets of the same temperature, then enveloping it in dry cloths; putting a bladder, filled with ice, over the head, neck and throat, and plenty of drinking, although the child found it so difficult, that, notwithstanding the burning fever, it every time pushed away the cup, and every time it swallowed some, screamed aloud. This, however, yielded so far, after several attempts, that in half an hour it succeeded in swallowing a teaspoonful, at short intervals.

These washings, I had repeated, whenever the heat returned, which I found necessary every three hours. The application on the neck and head were renewed, whenever the ice was melted; not until the fever had considerably abated, the child had become more quiet, the breathing was freer, I let it lie, after it had been washed at seven o'clock in the evening, in wet sheets, till perspiration broke out, which took place three hours after; when this had become general, and had lasted half an hour, the child was taken out of bed, placed in a bathing tub and washed rapidly

with water of 10° Reaumur (54½° Fahrenheit). After this it was wrapped wet in a dry sheet, placed in bed, and the application of ice to the head and neck continued, whereupon it soon became more quiet and fell asleep. But as the symptoms towards twelve o'clock became worse again, the child after having been washed as before, was wrapped in wet sheets and left in them to perspire, which took place at one o'clock P. M. most copiously. Hereupon the child became quiet, the heat was inconsiderable, breathing free, the cough less frequent, and with little effort, it vomited a very tough mucus. We now let the little girl perspire abundantly for two whole hours, and then washed her as in the morning. On the 17th at seven o'clock in the morning I found the child sleeping quietly in its night-clothes, in the lap of the mother; the heat had vanished from the head, face and throat, respiration was free, the tone on inhaling not yet quite clear, the temperature of the rest of the body but slightly increased, but the skin moist and soft. The mother told me that the child had had two copious stools during the night, that it had slept since four in the morning, had only coughed a couple of times, and every time vomited about two table-spoonfuls of tough mucus; that the heat had not returned since eleven o'clock of the preceding evening, and that therefore she, the mother, had not hesitated to fulfil the wish of the child, to take it on her knee, when it awoke half an hour ago, where it soon had fallen quietly asleep again. I prescribed to wash the child every four hours over the whole body, to wrap it wet, well up in its bed, to make cold fomentation with linen cloths, dipped in fresh hydrant water of 6° Reaumur, (45½° Fahrenheit), and lightly wrung, to renew it as often as they became dry, and to give the child thin barley water in small quantities.

In the afternoon at four o'clock, of the same day, the child was lively and well, swallowing and breathing free, the cough inconsiderable, only the voice continued somewhat hoarse and the temperature of the skin still somewhat heightened. I merely ordered washing at 12° Reaumur, (59° Fahrenheit), and if perspirations should ensue during the night, repetition of the same, but in water of 15° Reaumur ($65\frac{3}{4}^{\circ}$ Fahrenheit), and continuation of the fomentations around the neck, but which now should be changed less often, and be made with water of 12° Reaumur (59° Fahrenheit).

The night was passed by the child in constant sleep with short intervals. I found the little girl awake, cheerful, playing with her little sisters, and besides the paleness of her cheeks, could perceive no sign of sickness on her. To keep the activity of the skin in the same state, I ordered her to be washed twice a day for a minute in water of 15° Reaumur ($65\frac{3}{4}^{\circ}$ Fahrenheit), and to wear round the neck for two days longer, wet cloths of the same temperature; with these the child ran about the room, and on the sixth day after the commencement of the disease, was able to go out with the mother.

CROUP IN THE THIRD STAGE, OR THAT OF SUFFOCATION.

CLARA FISCHER, the daughter of a justice of the peace in Neukirchen, three years of age, a dark brunet, heretofore in good health, well fed, the only child of parents in very good circumstances, was in the month of September, during the vintage, carried by her grandmother to the vineyard, where the child remained, playing in the grass until the evening. As a sharp north-easterly wind was blowing

that day, and the child had been playing for several hours in the damp cold grass, it was taken with a fit of shivering. The grandmother, when bringing the child home, thought to do it good, by letting it sit beside the hot stove in the servant's room, in which from the presence of a great many persons, and the preparations of the evening meal the heat and steam were very great. The child fell asleep, and four hours after awoke with a violent cough and heat. During the same night the child was very uneasy, the next morning rather hoarse, cross, hemming frequently, and coughing with a shrill tone. During this day, the child had to be carried about, at two o'clock in the afternoon had chills, then fever, after which the hoarseness increased considerably and the cough became shriller and deeper.

As the parents of the child took the indisposition for a cold, which would pass off, they merely gave her some cough and catarrh lozenges, and in the evening some warm milk with egg and sugar. The child however only slept for short periods, became more and more uneasy, screamed frequently, whilst the breathing became more audible, and the heat of the body increased to such a degree, that the mother thought the child was all a fire. Towards morning it would not stay in bed any longer, but persisted in being carried about in the room by the mother, and would not allow any one to come near it, found rest nowhere, frequently bent backwards, and had several attacks of suffocation after midnight.

Alarmed for the life of their child by the rapidly increasing sufferings, the parents sent for me on the 24th of September, before the morning dawned.

After the mother had related to me what has already been stated, I found the child, which a few days ago I had seen perfectly well, very much disfigured. The face was

bloated, the eye fixed, at the same time rolling wildly, the look glassy ; it gnashed its teeth, bent backwards whilst the mother held it in her arms, often looked round the room shyly and confusedly as if it were looking for somebody, and gasped for breath with an open mouth ; the tone when inhaling and exhaling was whistling, sharp and hissing, the child itself without any voice, the cough rare, trifling, and accompanied by an effort to prevent it ; when this did not succeed, it stretched itself, bent the head backwards towards the neck, gnashed its teeth violently, shut its little fists convulsively, the eyes became fixed, the lips blue, over the whole body a cold sweat appeared, the pulsation of the exterior jugular vein, as also the beating of the heart could be seen distinctly, breathing became deeper and rarer, and the chest rose to such a degree, and the abdomen was drawn in so far, that it left for a moment a hollow in the region of the stomach. This attack lasted for more than two minutes, abated, after the perspiration had broken out, and the child sunk exhausted into the lap of the mother.

Recognizing here, by the exudation which had already taken place in the larynx, the wind-pipe and its branches, and by the symptoms which threatened suffocation, that this was the third stage, I thought it most necessary to act energetically and in such a manner, that the exudation, which threatened the life of the child, should be arrested or thrown off by an increased natural activity, particularly in the organs of the skin. After everything was ready, I ordered the child to be undressed, to have the perspiration wiped off, and to have it cooled by washing it with water a little tempered ; I then had it placed in a wash-tub, and got two women to hold it, after which I poured water over the child, by means of a vessel, which held about three gallons at 70° Reaumur ($47\frac{3}{4}^{\circ}$ Fahrenheit), during eight min-

utes, in such a manner that I could partially hit the body in streaks, from the head to the feet downwards, but particularly the head and neck, whilst I caused the breast, neck and limbs to be rubbed with damp linen cloths, after which the child was wrapped wet in a dry linen sheet and put to bed.

During the affusions, which lasted about eight minutes, the child could scarcely be held, gasped for breath, and the whole body became blueish and distorted. As soon as it was in bed I had bladders, filled with pounded ice, placed on its head and around its neck, and ordered frequent drinks of cold water to be given to the child, but which, in the beginning, she could not swallow. The chills and shivering, consequent upon the affusions, had not yet disappeared, when the sick girl had already fallen asleep. At the same time breathing became more free, and after about half an hour the respiration took a rattling sound. This sleep lasted about an hour and a half, after which the breath became again more whistling, and harder, the skin hotter and breathing more difficult; wherefore three hours after, namely, near eight o'clock, I ordered the second affusions to be applied. Of these affusions eight were applied in 56 hours, at greater and greater intervals; in the first five I used the same quantity of water in the same time, the sixth and seventh lasted only six minutes, and the eighth only four minutes. Already after the fourth affusion, on account of the decrease of the symptoms of the disease, the ice-bladder was removed from the head, and after the sixth, that from the neck, instead of which linen compresses, steeped in cold hydrant water were tied round the throat.

The child improved evidently, from hour to hour, and already on the 25th, in the afternoon, I allowed some cold boiled cow's milk to be given.

On the 26th, at six o'clock in the evening, after the child had perspired copiously, after the sixth affusion, as well as after the four preceding, the second, third, fourth and fifth, it was washed in water at 15° Reaumur ($65\frac{3}{4}$ Fahrenheit), heretofore water of 10° Reaumur ($54\frac{1}{2}$ Fahrenheit), having been used over the whole body. I directed the parents to continue the fomentations around the throat a few days longer, every time the heat should return, to wash the child in water of 10° to 12° Reaumur ($54\frac{1}{2}^{\circ}$ to 59° Fahrenheit), to renew these ablutions as often as the heat of the body should increase, and not to give the child anything to eat but cold boiled cow's milk or barley water, and to offer it frequently cold water to drink.

By this treatment, after a period of nine days, the little girl was as well as ever, and as early as the 1st October, I found her playing merrily with her companions.

CROUP, ALSO IN THE THIRD STAGE, TERMINATING FATALLY.

FRANK KING, not quite five years old, only son of a butcher, in very comfortable circumstances, at Schwaechend, was a fair, curly-headed, stout, blue-eyed boy. Playing in the yard in the wet, whilst it was raining, he had, according to the account of the physician of the place, who had treated him, caught a bronchial-catarrh, which the parents had neglected, so that on the evening of the third day, it turned to croup. This increased to such a degree, that when on the 28th April at nine o'clock, A. M. I was called to the sick child, I found a case, the symptoms of which were as dangerous as those of the last described, on account of the similarity of the two cases and their dissimilar termination, I am obliged to mention this case here again.

After the attack of suffocation, at which I was present with the physician, who had treated the child before, was passed, I had the affusion applied to the boy with the same precaution and under the same circumstances as in the former case, I then caused him to be put to bed, in which the same became more easy; whilst the chills still continued, he fell asleep, and remained so for about an hour and a half.

The second affusions had to be applied, when scarcely two hours had elapsed, namely, at half past twelve P. M., because the heat and attacks of suffocation returned. Having carefully explained to the attending physician and the parents the necessary treatment, and recommended to them the affusions at every return of the heat, and attacks of suffocation, as well as the application of ice to the head and throat and the plentiful drinking of water, I left the little fellow after the third affusion, which had taken place at five in the afternoon, in a quiet sleep, and so much improved that I thought the greatest danger over, and in the expectation that my directions would be punctually obeyed.

On the next day, the 29th, on account of a great number of patients, and the considerable distance of the place, I did not reach the house of the physician at Schwaechend until two o'clock P. M. He communicated to me that the child since my absence had slept well, and that the heat had not returned until twelve o'clock at night, after which the affusions had been repeated; the boy had then fallen asleep, and had slept undisturbedly, until five o'clock in the morning, perspiring regularly; that the breathing had been but little obstructed, that the eye had been cheerful, and the voice intelligible; that the child had asked to get up, and demanded to eat something, both which demands the pa-

rents, notwithstanding his advice to the contrary, had gratified.

Thus carried in the arms of the mother about the room, resting with his face on his hands, on the shoulder of the mother, he suddenly perceived a slice of bread and demanded it. The parents did not only not hesitate to give it to him, but also covered it with raw honey. However, the half of it had not yet been eaten, when the child suddenly had an attack of cough and of suffocation.

Now they sent in haste to the physician of the place, who attended immediately, and in whose presence the child vomited several pieces of the bread, it had swallowed, and in the course of three hours, had two attacks of suffocation. Although the physician advised the parents to renew the affusions which I had recommended, they were omitted because he did not sufficiently insist, and when we both visited the boy after two o'clock, I saw that he was irrecoverably lost. The immediate cause of his death, which took place at six o'clock in the evening, in consequence of a sudden congestion, was undoubtedly the over indulgence and affection of the parents towards the child, and their great prejudice against the application of cold water.

The above related case should therefore be a warning to every physician, who treats hydropathically or with water, a child which has croup to that degree, or any other dangerous disease, and who lives at a great distance, never to leave the child until the sickness is completely overcome, or a substitute is found, who is conversant with hydropathy, or the treatment with water.

BOILS, (FURUNCULUS.)

THIS is a very common disease, which generally proceeds from the person who suckles the child, from the sickly state of the mother when pregnant, or from the situation of the locality. It is produced by a peculiar bilious acrimony in the juices of the child, whose nature thus rids itself of them; but even here we ought not to omit to aid nature in her effort, because otherwise these boils might begin to suppurate, become malignant, and even wear out the feeble strength of the child.

Leopold Herz from Bruch, aged four months, strong and healthy, of sound and healthy parents, was suddenly attacked by boils after the mother had already been sick for four weeks with a bilious fever. The affection increased at such a rate in a fortnight, that when I was called, I found twenty-six of them, varying in size from that of a bean to that of a walnut, on the head, neck, back, and the joints of the arms and legs. The greatest number was on the head, and the largest was on the neck near the left shoulder. Notwithstanding the emaciation of the child, in consequence of the unwholesome food and the violent pains, suppuration had already commenced, and the pus was very thin and liquid, on account of which, considering the reduced strength of the child, the incessant pain, and the bad state of the milk, I feared the accession of a wasting fever.

The child was immediately taken from the breast of the mother, and given to a neighbor, who had been delivered ten weeks ago, and whose child had died a few days since. This woman gave the child the breast four times a day, and in the intervals a soup of grated bread and the yoke of an

egg and some water, also some fresh water and a little sugar was given to the child. The suppurating boils were covered with moist linen rags, but the whole body of the child was wrapped every four hours, consequently six times a day, in a fine wet linen sheet, and four hours after, washed in water of 16° Reaumur (63° Fahrenheit), equal to that in which the sheet had been dipped, after which the proceeding again recommenced immediately.

Under this treatment, which we continued without interruption for a week, the appearance of the child improved evidently; the boils, which had before commenced to suppurate, became healthful, and healed up by the eighth day; the remainder, of which the greater part discharged a thick bloody pus, had partly opened, partly dried up.

On the ninth day of the treatment, the enveloping in wet sheets was discontinued, instead of which resolvent applications were made to those parts, which were still covered with boils, these consisted of rags, doubled four times, steeped in water of 12° Reaumur (59° Fahrenheit), and well wrung, which were again covered with dry pads, and changed whenever they began to dry up. Besides this, the child was twice a day put in a bath of 15° Reaumur ($65\frac{3}{4}^{\circ}$ Fahrenheit), and left in it for five minutes; these baths were continued with a gradually decreasing temperature of the water, for twenty days longer, even after I had declared the child perfectly cured.

What is remarkable in this case, is, that the mother, for whom I had also ordered the daily bath, had entirely recovered ten days sooner, so that I was not afraid to put the child again to her breast on the twelfth day.*

*The above case of the treatment of the mother, I reserve for my work, containing the practice of twenty two years, which will shortly be published.

RUPTURES.

THOSE ruptures, to which children are subject, are at the navel (*hernia umbilicalis*), at the groin (*hernia inguinalis*), in the scrotum (*hernia scrotalis*) and at the thigh (*hernia cruralis* or *femoral hernia*), with which the child is either born, or which it gets by violent crying. Most ruptures by which children are troubled, are at the navel, which is solely to be attributed to the improper tying of the navel-bandage or belly-band by the nurse. Removal of the causes of violent screaming, proper diet of the mother, or if the child is older, of the child itself, application of a proper band or bandage, (in ruptures at the navel, the before-described bandage is of eminent service), every day cold washing of the whole body, hip and half baths have given in my practice, in from six weeks to fourteen months, at latest, the most desirable results.

RUPTURE AT THE RIGHT GROIN.

Joseph Muehl, son of an apothecary, ten years of age, strong and otherwise healthy, when springing over a ditch, fell and was suddenly ruptured. It was a *hernia inguinalis-scrotalis*. After different embrocations had been used for eight months, and the patient had worn a troublesome bandage or truss, I was consulted. The boy was now washed every morning in quite cold water, affusions were made

over the small of the back and the groins, and he had to take four hip baths a day, each of fifteen minutes. After the rupture had been reduced, a six-fold compress, which had been dipped in cold water and wrung out, was placed over the right exterior abdominal ring, and held by a simple pledget of the size and form of a walnut, and fastened around the body by means of a simple body-girdle and thigh-strap made of English linen. At the same time we did not omit to change the compresses, when they got warm, for others dipped in cold water. The patient was obliged to remain in the open air as long as possible, taking moderate exercise, and only food, which was of easy digestion was allowed.

In consequence of this treatment, which was exactly followed; the widened exterior abdominal ring, closed so completely, that at the expiration of ten weeks, experiments were made by coughing, blowing, and sneezing, without a truss, and the rupture did not appear any more. However I told the patient to continue the ablutions, and the wearing of the pledget for eight weeks longer, after which this was discontinued, and no further sign of a rupture has ever appeared.

SMALL-POX.

THIS disease, which even in the last quarter of the past century, was much dreaded, and which not unfrequently appeared as an epidemic, used to kill as many children as it maimed. Every thing was tried to arrest this disease, but even the artificial inoculation of the small-pox would not do, until at last Dr. Jenner succeeded in discovering vaccination, or the inoculation of the cow-pox. But unfortunately, through the length of time or insufficient precaution, and neglect of the existing rules, the efficacy of this so well tested preservative, seems to abate somewhat, as in the last ten years we have had more cases of small-pox than in any other ten years of this century.

Although, when compared with the times, before the invention of vaccination, attacks of regular small pox are rare, the character of the disease has continued the same to this hour, as well in its intensity as in its duration and course. Therefore the same fear prevails wherever this malady appears, as the power of medicine is very inefficacious against its violence.

Of the numerous cases of small pox, which have occurred in my long practice, I shall describe two of the most recent.

Real small pox is an infectious disease, which spreads from one member of a family to another, and even over whole districts, not only disfiguring the body by its baneful effects, but threatening the lives of children and of grown persons. Although, as we have already said before, by the introduction of vaccination, the epidemic recurrence of this disease has been checked, it cannot be denied, that, particularly since about ten years, frequent single cases have oc-

curred, which, the same as before the introduction, have terminated by maiming or destroying the patient.

Of all the remedies that have been used for this disease, the safest has been the application of water. Here are the two above mentioned cases.

Mary Sanguinity, from Lecka, on whom the first vaccination had taken no effect, and who at the second had pseudo small-pox (varioloid), had an attack of real small-pox in her fourth year, after her father, her mother, and another child of the house had been attacked, and the mother as well as the child had fallen victims to the disease. At a professional visit of the father, who had been taken ill nine days before, and of the mother, who was at the point of death, and of the other child, I found the little girl in the height of fever, squeezed in her little bed, almost helpless.

August 16th. The sick child was very uneasy, tossed about the bed; the skin was dry, burning hot; from time to time spasms in the hands and feet; the pupil of the eye was enlarged, the white of the eye was red, the cheeks red, the teeth brownish, the breath hot, and as well as the evaporation from the skin, accompanied by a peculiar smell; the urine, which was voided but rarely, brownish red. In the face, particularly on the upper eyelids, on the breast and thighs, appeared small spots of the size of a millet seed, to that of a lentil, in the larger ones the projection over the skin was distinctly visible, and in the middle a small knot could be perceived, the trifling elevation of which could be distinctly felt. The breathing of the child at the same time was oppressed, and it could swallow only with difficulty. I ordered wrapping up in cold sheets, not wrung much, which had to be changed as often as they commenced to get dry, and cold fomentations around the head and the neck,

which were changed as soon as they became warm. As food I ordered fresh cow's milk, and for a drink a moderate quantity of fresh water from the hydrant or fountain.

August 18th. After the wrapping up in cold sheets had produced several sweats, the little girl was every time washed in water of a temperature of 18° Reaumur ($72\frac{1}{2}^{\circ}$ Fahrenheit); she was then not wrapped up again, until the heat of the fever returned, but the application round the head and neck were continued. Under these circumstances, the disease reached its height, that is, the time of maturation. The small-pox covered the whole body either singly or in groups, most generally the face and the breast. In the face they appeared particularly about the eyes, and so much so, that these were entirely closed; in the whole face there was not a spot the size of a nail's head that was free from the eruption, and the face itself was swelled. The single pustules of the eruptions showed a faintly circumscribed areola, in the midst of which was a blueish white pustule of the size of a lentil, split in two, which, on opening, discharged a dirty white, somewhat transparent lymph. Already on the 17th of August, the fever had commenced with great violence, and seemed to have reached its greatest height in the evening, the patient becoming very uneasy, tossing about in the bed, frequently talked incoherently, and having spasms in her hands and feet, swallowing at the same time being very difficult, the cough frequent, and the pulse much accelerated, thread like, small and unequal; the peculiar smell of those affected by small-pox had also much increased.

In the course of the day, fresh milk from the cow, barley water, and pure water to drink were given to the child alternately; cold applications were made round the neck and head, which were changed whenever they began to get

dry. The eyes were frequently washed with luke warm milk and water, and over them, a single linen rag, dipped in sweet cream was placed, which, as often as it commenced to dry up, was exchanged for a fresh one. This kind of fomentation was applied on the 19th over the whole face, to prevent too strong a suppuration, and with it the marks it leaves behind.

August 21st. The symptoms of the disease described under the 18th, had decreased this day, the tenth of the disease, and the fifth of the treatment, so far, that the attacks of fever disappeared entirely; the child could open her eyes, asked to eat, and was able to swallow properly. The eruption had already dried up, the scabs came off easily by bathing twice a day, for five minutes, in a glutinous water of scalded bran of 18° Reaumur ($72\frac{1}{2}^{\circ}$ Fahrenheit), and later the whole skin scaled off, the baths being continued. However, the same evening, a diarrhœa made its appearance, which, during the night, became very violent. I ordered injections of starch every three or four hours, and fomentation of luke-warm water, 16° Reaumur (68° Fahrenheit), round the abdomen, and in twenty-four hours the diarrhœa was checked. On the 14th day of the treatment the child was running about the room perfectly well, and later no marks could be perceived in the face.

Frank Aulich, in Neustadt, ten years of age, of a strong and healthy, but bloated appearance, took to his bed on the 12th May, when the parents perceived an eruption of the skin. Not suspecting anything bad, and deprived of all means, they left the child without any assistance, until I visited a patient in their place, which was at a considerable distance from my residence. On this occasion they requested me to visit also their sick child. I found the boy in a bad condition, there was a rattling noise in his throat, and

the whole body was covered in such a manner with the small-pox, that not a single feature could be traced in his countenance.

The whole body, and particularly the head and the hands were swelled, and as if covered with a crust of marble, the eye, by means of hardened pus was closed, the speech and hearing were lost, the wings of the nose (*alæ nasi*) in constant motion, the lips and the tongue dry and cracked or chapt, the breath much oppressed, the abdomen swelled and painful, no stool, the urine of a brownish color, and like the really colliquative (excessive) perspiration, and the surrounding atmosphere, smelling very badly; besides the little fellow kept constantly playing with his fingers, and murmuring between his teeth, the pulse was small, thread-like and oppressed. In order to relieve the miserable nervous condition, and to check the excessive perspiration, I ordered fresh enveloping of the whole body, in well wrung cold sheets, as often as they began to dry up; at the same time the boy was placed four times a day into a bath of 15° Reaumur, ($65\frac{3}{4}$ ° Fahrenheit), consisting of a mixture of milk and water, and cold applications of well-water were made to his head. Over the eyes, as well as over the whole face, fine linen rags, dipped in sweet cream were placed, and changed very often, and the other parts of the body, as they were so thickly covered with the crust, were also smeared with sweet cream. Besides some water given frequently, but in small quantities, and some milk, the child received inwardly every half hour, a piece of ice the size of a pea.

Already, the second day, the violence of the disease abated, the child had a stool, on the third, the nervous character of the disease disappeared, and with it the excessive perspiration, after which the enveloping and the ice were

discontinued. By means of the continuance of the said baths, frequent drinking of water, cleaning of the eyes, applying sweet cream to the crust, in the face, and on the rest of the body, the exfoliation proceeded so rapidly, that on the 12th day of the treatment the patient was running about quite well, without complaining; and with the exception of some trifling marks, nothing could afterwards be perceived of the malady.

As in the two above related cases, when the treatment has been correct, we shall in no type of small-pox have to combat bad consequences.

The same treatment may be applied to other diseases, resembling small-pox, observing, that the air of the room must be kept constantly pure, and that the patient is to be but lightly covered. Further it is necessary, particularly when at the same time, and in the same place several cases of this kind have occurred, as soon as the child is observed to become uneasy, complains of weakness of the limbs, of head-ache and sore throat, of difficulty of swallowing, to make cold fomentations to the head and throat as described above. Cold water should frequently be given to the patient to drink, and the diet be confined to milk food; at the same time washing frequently and rapidly in water at 15° Reaumur ($65\frac{3}{4}^{\circ}$ Fahrenheit), and when the fever increases, wrapping the patient repeatedly in damp cold sheets. Only very rarely, and in the highest stage of torpor, where this will not yield to the treatment, described in the history of the last case, and the danger reaches the greatest height, several pails of cold water should be poured over the head of the patient until consciousness returns, after which fomentations should be applied to the head and neck, and the patient be wrapped in dry sheets. As soon as the state of torpor returns, the same proceeding should

be repeated, until they disappear entirely, after which the treatment is continued as described before, namely, the wrapping up in sheets, or the bathing.

Innumerable cases of this disease have convinced me that the treatment with water, is to be preferred to all use of medicine, because it not only prevents every subsequent bodily defect, and no further treatment is afterwards required, but to the astonishment of everybody the patient recovers, when we are already justified to doubt the possibility of preserving his life. As a proof of the healing power of water in such diseases, I shall only state that of 180 small-pox patients, of which 29 were adults, only five died; and of these five, when I was called in, two were already suffering from brain-fever, two were suffocating, and the one was expiring, after his strength had been exhausted by excessive sweating, and suppuration of the eruption. When I used to treat the disease otherwise, I used to lose a great many, and I therefore was induced to prefer that mode of treatment, and to recommend the same to all my friends.

ABDOMINAL TYPHUS.

Generally commences with prostration of the limbs, difficult breathing, dejection, loss of appetite, disgust, inclination to vomit and frequently with much increased thirst. The head pains, the abdomen, but particularly the navel is distended towards the right side, and very sensitive, the skin dry, hot, the stool very indolent, the urine colored, and sometimes clouded. The fever, in which cold and heat alternate, resembles a continued fever.

Fomentations on the abdomen and the head, wrapping the whole body in damp linen sheets, and drinking plenty

of water, will restore the patient to health in two or three days, if the physician is sent for in the beginning of the sickness. But if the inflammation has made some progress, and the body is reduced by the fever, it will take from six to eight days, before the patient feels well again.

As to the changing of the fomentations, it should be regulated by the violence of the pain, and the disposition to inflammation, so that it has often to be done every ten to thirty minutes. At any rate, care should be taken that the heat which forms under the cloths does not become troublesome to the patient, which must also be understood of the wet sheets, in which he is wrapt, these are to be changed every two hours, every hour, and sometimes even more frequently. But when we observe that the heat which is formed between the skin and the sheet, is not troublesome to the patient, and a perspiration is induced, we may leave him in them, if the pains in the abdomen have already ceased from half an hour to an hour, after which he should be washed rapidly, the fomentations be put on the abdomen, and when the heat returns he should be again wrapped in a wet sheet.

DIARRHŒA.

DIARRHŒA may be caused by improper diet of the mother or nurse, who suckles the child, by overfeeding or by some act of the grown child itself; also by taking cold. In the first case, when the diarrhœa is gastric, the patient complains of headache, inclination to vomit, pressure in the region of the stomach, a pinching pain about the navel; when the tongue is foul, or when, with little children, the forehead feels hot, these parts are painful, and pap-like, thin stools, with indigested food succeed each other rapidly:

give alternately half and whole injections every hour or two, make exciting fomentations over the abdomen, which must be frequently changed, the same over the head; to children of three years and upwards, give plenty of water to drink, until they begin to vomit; observing in this case as well as in the following, a strict diet, giving nothing but a little water-gruel, and in the course of a day or two, frequently in ten or twelve hours the whole sickness will disappear.

In diarrhœa arising from cold and rheumatism, the treatment is exactly the same, because the two forms of disease only differ in this: the fever in diarrhœa from cold, is more general, more violent, and takes a more inflammable character, whilst the skin is dry, hot to the touch, and more disposed to perspire, the stools attended with more urgency, and at last consisting of mucus, the pain spreading over the whole abdomen. With the rheumatic diarrhœa on the contrary, the fever is not so violent, not of regular duration, is often accompanied by chills, and goose-skin, because the pores of the skin are spasmodically contracted, the thirst, compared with the other two cases, is trifling; the very thin, more watery stools are discharged frequently, during a tearing moving pain in the lower part of the abdomen. Strict diet, moderate drinking of fresh well or hydrant water in small quantities at a time, warming fomentations, well wrung, which must be changed as often as they begin to get dry, frequent enveloping, which also must be changed often, followed by ablutions at 12° to 18° Reaumur (59° to $72\frac{1}{2}^{\circ}$ Fahrenheit), and half injections of a dissolution of starch in a temperature of 10° to 12° Reaumur ($54\frac{1}{2}$ to 59° Fahrenheit), will soon stop both the pain and the diarrhœa, without any further consequences.

SUFFOCATION.

THIS affection generally attacks children at the earliest age, mostly, soon after they are born, during suckling and teething; more rarely in the later periods of life. The cause of the frequent fits of suffocation, which often terminate in actual suffocation and death, in cases which occur soon after the child is born, lies in the accumulation of mucus in the cavities of the nose, the mouth, and the throat. For this reason it is necessary, as we have mentioned before, that these cavities should be examined as soon as the children come into the world, and be cleaned with a soft rag steeped in water and wrapped round the finger. Other causes of choking are: constant screaming, convulsions, when crying, when sucking, or when eating mush or flummery, particularly when very hot. Suffocation is also brought on by swallowing food too rapidly, which on account of its size or condition, cannot pass through the throat, and further, in consequence of spasms, hooping-cough, and croup.

A quick removal of the contents of the mouth and throat, by cleaning the cavities, vomiting, whilst the head of the child is held downwards, and forwards, or pushing the contents into the stomach, which can best be done by tying a small piece of sponge to a piece of whalebone or a quill, together with affusions of several pitchers of water over the head, neck and spine, will soon restore the child; the latter are particularly efficacious, as the history of the following case will show.

Minna Poosch, eight months old, very lively, stout, well fed, and in good health, was, in the first weeks of teething,

attacked by a violent cough, to which, after the third day, came spasms, which terminated by a fit of choking.

Every day, the stout healthy child became thinner, the attacks were more violent, and threatened each moment to terminate life.

After every allopathic remedy had been applied in vain, and the attending physician had given the child up, I was called in by the parents, who were distractedly alarmed for the life of their only child.

As the fever, particularly the heat, which regularly appeared before the attack, was very violent, the child was well wrapped up in a wet, cold sheet, and covered, whilst every two hours an injection of a tea-cup of cold water was given, and cold water and skimmed cow's milk allowed for a drink. When the sheet was dry, or when the heat returned, the patient was wrapped up anew. When attacks of suffocation, with or without convulsive cough or spasms, or the reverse, appeared, affusions were applied in the following manner. The child was put in a large tub, and held in it by two persons, one on each side, and rubbed during the affusions, whilst a third person supported the head of the child, with the left hand, and bent it forwards, so that the water could not run into its mouth. The pitcher, containing about a gallon and a half, was held two feet over the head of the child, and poured in a stream over the head, neck and back. This was continued until these threatening attacks ceased altogether, after which the child was put, wet, but wrapped in dry sheets, in its bed. When the heat returned, the enveloping was again resorted to, and when the other attacks appeared again, the affusions. Already, during the first affusions, the spasms, and with them, the fits of suffocation, during which the child used to become blueish red, the pulse and breath to stop, and the glassy eye

to turn in the head, abated considerably. During the second, the fits became of shorter duration, so that on the fourth day, the child was not only rid of them, but could be said to be entirely cured, as it had even cut its teeth, and the cough and spasms had disappeared and returned no more.

INFLAMMATORY FEVERS.

THESE seldom attack children alone, they are mostly connected with some local or otherwise acute maladies. The purely inflammatory fever generally assails children who are stout and strong.

A child, attacked by such a fever, becomes uneasy, terrified, its nails are blue, the hands and feet cold, then follow chills, which seldom last more than half an hour or three quarters, the abatement of which is plainly perceptible. The eye, which, during the chills, is inanimate, obtains life and sparkles, the heat of the head augments evidently, and the child asks to drink. At this period, a dry, lasting heat, spreads rapidly over the whole body, the skin becomes dry, parchment like, and burning hot; the eyes begin to sparkle, the cheeks burn, the tongue becomes dry and chapt, the breath is short, whilst the abdominal muscles, which are drawn in, are moving, the rest of the body is frequently as red as scarlet; perspiration and stool entirely wanting; the urine is sparing, very red, clear, and smells bad, the pulse much accelerated, full and hard.

This disease, by which children are generally attacked, in consequence of having caught cold, disappears for certain, under the following treatment, without leaving any bad symptoms behind, and as quickly as it commenced.

The first problem for the attending physician, in this case, is, to diminish as soon as possible the temperature of the body, increased by the accelerated circulation of the blood, thereby to prevent the consequent effect upon the brain, or some other organs, as also the decomposition of the blood.

The best way to effect this, is to wrap the patient, according to the degree of heat of the body, in a single or double sheet, which has been steeped in cold water, and has been slightly wrung out, and to change this every quarter of an hour, every half hour, or every hour. At the same time cold fomentations, covered with dry cloths, are to be made, which, according to the degree of determination of the blood to the head, must be changed more frequently than the sheets.

In this kind of inflammatory fever, the child should be given cold well or hydrant-water as often as possible, but only in small quantities. When after three or four envelopments, the heat of the fever does not abate, but continues, the tongue becomes dry and chapt, and like the teeth and lips assumes a brownish color, give every quarter of an hour a piece of ice, the size of a small pea, after which the child ought to drink, every time. As long as the skin remains hot, dry, and parched, we ought neither to wash the child nor drive it into a perspiration, and less so, when with, or during the fever, sore throat, and difficulty of swallowing make their appearance, because when the violence of the fever is passed, an eruption generally follows, which, by this precipitate proceeding, might easily be driven back.

As soon as we perceive that the child swallows with difficulty, we ought not to neglect to put the cloths, folded four double, steeped in water, and well wrung, from one ear to the other, in front, over the throat, and to keep them

firm by means of a dry cloth, changing them as often as they become warm.

When the head of the child becomes more free, the eye more cheerful, the tongue moist, the violence of the fever has abated; when the skin, which now is less hot to the touch, becomes soft and greasy like, the child may be washed in fresh water of from 8° to 10° Reaumur (50° to $54\frac{1}{2}^{\circ}$ Fahrenheit), but when there is any sore throat, in water of from 10° to 15° Reaumur ($54\frac{1}{2}^{\circ}$ to $65\frac{3}{4}^{\circ}$ Fahrenheit); after which it is to be wrapped wet, in dry sheets, put to bed, and covered moderately. We must now await, if perhaps a perspiration will follow. If after an hour this has not taken place, or if the heat of the body increases again, and the skin begins to get dry, we must not delay to renew the wrapping up, and if the skin becomes sticky, to leave the patient in the sheets until perspiration ensues, in which, if the head is free, the child may continue from half an hour to a whole hour, and be washed afterwards in water of 12° to 15° Reaumur (59° to $65\frac{3}{4}^{\circ}$ Fahrenheit).

When, after this treatment, all the former symptoms which have been described as dangerous, that is, violent headache, difficulty of swallowing, dry, chapt tongue, difficult breathing, and the fever heat, have disappeared, let the child be washed in fresh water of 8° Reaumur (50° Fahrenheit), let its diet be confined to fresh skimmed cow's milk, and let it be carried about the room, or if it is strong enough, let it walk about. But if there are symptoms of a coming eruption, the child should remain in bed, at a moderate temperature, the fomentations on the head and neck being continued, and it should be washed with water of from 15° to 18° Reaumur ($65\frac{3}{4}^{\circ}$ to $72\frac{1}{2}^{\circ}$ Fahrenheit), three or four times a day.

If, as has been mentioned before, there is no local affec-

tion connected with it, the fever, under such treatment, will pass off in two or three days, and the transit from sickness to health will be as rapid. Should it however be connected with some local complaint, we must then modify the treatment according to the form of this complaint.

HISTORY OF A PURELY INFLAMMATORY FEVER IN THE HIGHEST STAGE.

AUGUST 24. In the afternoon I was called to see a boy, four years old; I found the child in the lap of the mother, who was much frightened, tossing about, with a really burning fever, which even communicated itself to the mother. The head was much affected, the white of the eye blood-shot, the face puffed up, and very red, tongue, dry, foul, brown, and like the lips, chapt. The little fellow tossed about anxiously, and on account of the dryness of the tongue, could not articulate a single intelligible sound; the respiration made a rattling noise, and was performed by the aid of the abdominal muscles, the skin, which was very red, and in some parts had a yellowish cast, was as dry as parchment, and burning hot, the pulse quickened, full, tense and hard; no stool for the last forty-eight hours, and the scantily discharged urine showed itself of a brownish color.

The child was wrapped in double linen sheets, moderately wrung, from the head down, over the feet, which in the beginning were changed every twenty minutes, later, accordingly as the fever abated, every half hour, every hour, and finally every two hours; at the same time applications of finely pounded ice were made over the head, and a bit of ice, of the size of a swelled pea, given to the patient in a spoonful of fresh water. After this treatment had been continued for twenty-four hours, the boy could speak aloud, swallow

properly, and the fever, and with it the heat, had diminished so much, that he could be declared out of all danger.

On the 25th, at eight o'clock in the morning, the boy having slept the greater part of the night, although he had been wrapped up several times, and his skin having become moist, I ordered him to be wrapped up in a single, well wrung, damp linen sheet, to induce perspiration, which broke out after an hour and a quarter, and continued copious, whilst cold water was frequently given, for half an hour. After this I had the child put in a tub, and washed quickly, in water of 10° Reaumur ($54\frac{1}{2}^{\circ}$ Fahrenheit), after which, without being dried, he was wrapped in a dry linen sheet, and put into bed. After a little while a cup of skimmed milk was given to him, which, besides a little wheaten bread, formed his food for the next three days. As the heat again increased towards noon, I ordered the single enveloping to be continued, to make only fomentations of cold water, and to give the patient plenty of cold water, without ice, to drink. After the fever had entirely disappeared, about eleven o'clock, the child was well washed in water of 8° Reaumur (50° Fahrenheit), and finally three gallons poured over him, after which he slept very quietly until morning, awoke quite well, and after he had been washed again, ran about the room as lively as possible.

The above mentioned ablutions were repeated the same day, the third of the treatment, every four hours, and the patient, after each, put to bed for a short time. His diet now consisted of a little soup, and some apple-sauce.

The next morning, to the great joy of the parents, who had already given up all hope of his recovery, as the disease, in spite of all the remedies had become worse and worse, until water was applied, the boy was perfectly well, and on the same day, the fourth of the treatment, was taken

into the fresh air. This was found very useful, and, as from that time, he was every morning washed over the whole body with cold water, and cold water thrown over him, he remained in good health.

INTERMITTENT FEVER, OR FEVER AND AGUE.

Intermittent fever is a disease, which frequently appears as an epidemic, visits certain localities every year more or less, and according to my observation and that of others, never attacks infants,* but often children of a more advanced age.

The cause is mostly to be found in gastric matter, which remains in the first ways of digestion. Children with a bloated look, with high bellies, are most subject to attacks of this disease. This kind of fever, when it occurs as purely intermittent, cannot be mistaken. The attacks, the paroxysms, the physical weakness, then cold, shivering, heat and perspiration following in a regular order of succession, and recurring at certain periods; leaving the patient between the paroxysms generally well and with a good appetite, are the sure symptoms. These fevers are divided according to the length of the intervals between the paroxysms: *a*, into quotidian, when the whole paroxysms, together with the interval, occupies only twenty-four hours; *b*, into tertian, when the paroxysms comes on every other day, the interval occupying one whole day; *c* into quartan, when the paroxysm appears every third day, leaving an interval of two days free of fever, and so on for those of five, six, seven and eight days.

* Although many physicians are of opinion that the child is subject to intermittent fever at every period of life.

Besides these, however, there are several other kinds of intermittent fevers, namely the complicated ones, where two paroxisms appear the same day, and which, according to the periods when they appear, are divided into double, triple, quadruple and manifold.* To these must be added the masked ones, which are so called, because, with the intermittent type, another disease is connected, on account of which, it becomes difficult to distinguish the former, and it therefore happens frequently, that the character of the fever, namely, that of intermittent, remains unnoticed, whilst the form of the disease alone is attended to.

In the same manner, as the fever may be overlooked, so on the other hand the disease may be overlooked or mistaken, when the character of the fever bears some resemblance to that of intermittent, which occurs most easily with children at the time of teething, particularly when cutting their wisdom teeth.

The phenomena, attendant on an intermittent fever, and by the peculiarity of which it makes itself known, vary very much. With children in particular they often present a very confused picture. We can however convince ourselves of the existence of this kind of fevers by their return on certain days, and even at certain hours with prostration of the limbs, chills, (under the influence of which, the finger-nails and toe-nails first become blue, the hands and feet turn quite cold, and after which, shivering and often

* As here is not the place nor sufficient room to enter largely into the special character of the disease, I take the liberty to refer to a work, which will shortly be published by me, under the title of: "Botanical Practice," and in which I shall enumerate all the diseases, which can be cured by means of herbs and roots, and explain both their correct diagnosis and their botanical treatment.

chattering of the teeth, follow); after this, heat, terminating in perspiration.

A regular diet is most necessary. If the child is still sucking, the mother must live upon spare food without any spices, and strictly avoid all exciting spirituous drinks. If the child is weaned, and already several years old, we should, if not some other disease exists at the same time, look to it, that it receives sufficient food, but avoids all meat and greasy victuals, spices and spirituous drinks, and that it takes nothing to eat, two hours before, and two hours after the paroxisms.

During the intervals of the fever, frequent exercise in the open air, and in the morning and evening, cold ablutions, followed by affusions are essential. In intermittent fevers, accompanied by headache in front, inclination to vomit, want of appetite, pressure in the region of the stomach, costiveness, I can recommend frequent drinking of cold water, injections of the same 10° to 12° Reaumur, ($54\frac{1}{2}^{\circ}$ to 59° Fahrenheit), cold wet fomentations around the abdomen, and if this does not produce the desired evacuation, hip and half-baths in water 8° to 10° Reaumur, (50° to $54\frac{1}{2}^{\circ}$ Fahrenheit), under constant friction of the abdomen and of the feet. As soon as the first symptoms of the paroxisms make their appearance, the little patient should be enveloped in a cold wet sheet, well wrung, to induce perspiration by the vapor, which is generated between the sheet and the body. This will abate the chills and terminate them the sooner, as they are particularly dangerous for delicate children, producing a violent shock upon the nervous system, besides this the shivering is frequently accompanied by spasms, which may endanger the life of the child.

If the cold passes off, and the heat appears, without perspiration or symptoms of perspiration, if the skin becomes

dry, and the heat increases, we should not hesitate to renew the enveloping, which this time, however, must be more damp, wringing the sheet more or less according to the degree of heat. This treatment must be repeated until the perspiration appears, as often as the sheet becomes dry. At the same time we should give the patient to drink, whenever he asks for some, and not neglect to make cold fomentations over the forehead and the top of the head.

When by this treatment, which may be modified in different ways, perspiration makes its appearance, the child must be left in it, until the whole body is covered with it. When this is accomplished, a fresh drink should be given, it should be taken out of its bed, and placed in an empty tub; here it should be well washed with a sponge, from two to five minutes, with water of 10° to 18° Reaumur ($54\frac{1}{2}^{\circ}$ to $72\frac{1}{2}^{\circ}$ Fahrenheit), the water poured over it, and after it has been thoroughly rubbed and dried, it should be dressed and brought into the fresh air, where it should take as much exercise as possible.

NERVOUS FEVER.

NERVOUS fever is a disease, the name of which alone creates terror, not only in single families, but over whole districts, where such a case occurs. It is a disease, which spares no age, and which has decimated whole districts, but in which cold water, for a long time past, has proved not only the best curative, but also the safest preventive remedy,* which Dr.

* Already in earlier times, physicians have recommended the cold water for nervous fevers, among others, Coldani, at Naples, in 1724; Lorry, in Egypt, William Wright, in Edinburgh, 1779; Janus Charru,

Hollmann in Berlin has clearly and incontrovertibly demonstrated in his late excellent work, "The Typhus of 1844."

The nervous fever appears under different characters, sometimes it begins with a state of excitement in the nervous system, at other times with a diminished nervous vitality, with a disposition to lameness; sometimes as a pure nervous affection, and again as a symptomatic affection in the form of so called bilious, gastric, mucous nervous fevers. So also with predominating suffering of the brain, of the spinal marrow, or the ganglia of the abdomen, in which case it is called abdominal typhus.

But however numerous this species of nervous fevers may be, it is not difficult to know them, for in this mode of treatment, we have not so much to do with the peculiar type and form of the disease, as rather with the disease itself, and the best manner of assisting the efforts of nature.

By nervous fevers in general, we understand such, as without any sentient perception, exercise a peculiar influence upon the nervous system, in such a manner, that an irregularity in the same system shows itself, which threatens life; they are in no relation with the causes whatever, and the symptoms go off without order, and do not connect with the intensity of the fever; finally they either appear under a peculiar state of excitement, or a peculiar prostration of the nervous system.

The nervous fever is generally preceded by certain precursory symptoms, consisting of a chilliness and subsequent heat. The child complains of more or less dullness of the head, the appetite disappears, the tongue becomes white, the

in Liverpool, 1787; Girard, 1796; Currie and Brandis, Joseph Frank, in the Vienna Hospital, 1804; Hirsch, in Goldkronach, 1806-7; Kolbany, in Pressburgh, 1808; Fræhlich, in Vienna, 1810; and in more recent times Hufeland and others.

countenance changes color frequently, thirst and sometimes vomiting are among the symptoms. The child begins to totter in its walk, it can no longer stand, the eye is either languid, or piercing, glassy; giddiness, inclination to sleep, sleeplessness, staggering, raving, twitchings of the muscles. The patient is often uneasy, tosses about wildly or lies still, brooding for himself, his thirst becomes violent, the skin is dry and hot, the tongue and lips dry and chapt, and the teeth soon begin to be covered with a brownish crust. Mostly there is a want of perspiration, and when it exists, it is either quite cold, confined to the forehead and face, or accompanied by coldness of the extremities. The abdomen expands, often appears as if divided by a string in two parts; frequently there is costiveness, and in other cases again, loose diarrhœa; in the state of excitement, the urine is reddish, under all other circumstances, it is red.

As to the treatment, it differs in so far, that where there is increased irritability, we must diminish the warmth by local fomentations, general enveloping, and diversion by half, full, foot and hip-baths. Where on the contrary, there is physical prostration, we must induce perspiration, by wrapping the patient in wet sheets, after affusions have been applied. In case any local symptoms should appear, we must give bits of ice, order frequent drinking of fresh water and cold injections.*

Joseph Klein, son of a cabinet-maker, three years of age, of delicate appearance, fair, sensitive, had suffered for more than a fortnight, from a swelling of the maxillary glands,

* Reserving all further explanation of the nervous fever and its treatment, for the publication of my "Botanical Practice," I here add, as in all preceding and subsequent cases, for the easier recognition and healing of the disease, the most remarkable cases which have occurred in my practice

with which a fever was connected, which the physician who had prescribed before me, had tried to relieve by embrocations and salts, without observing that the disease was taking a nervous character, of which the above mentioned glandular affection was not the cause. As the malady increased, without yielding to the cooling and diverting remedies, I was consulted.

On the 15th day of the disease, and the sixth of the violence, I found the boy in a very violent paroxism of fever, the symptoms were inflammatory, the face was very red, the tongue furred, a dirty brown, the lips dry and chapt, the thirst much increased, the speech faltering, the breathing difficult and hot, the sleep interrupted by sudden starts, and whilst awake violent disquietude and tossing about; the lower part of the abdomen was distended, burning hot to the touch, and painful, the skin dry, and the whole body burning like a coal, which, during the twenty-four hours, yielded two or three times to a coldness in the extremities, and to a cold perspiration; the patient had from five to six stools a day, of the nature of a mucous diarrhœa, whilst the urine appeared a bright yellow and clear, and the pulse was much accelerated, small, and thread like. All these phenomena increased towards the evening. I recognized the disease as a nervous fever, accompanied by a heightened state of irritability, wherefore I prescribed as follows.

To put round the abdomen four doubled thin cloths, which had been steeped in cold water, and to wrap him in equally wet double sheets from head to foot, to repeat the enveloping as often as the sheets grew hot; and to put on the head a pig's bladder, half filled with pounded ice. To give to the boy every quarter of an hour a bit of ice of the size of a swelled pea, in a table spoonful of cold hydrant water, without any thing to eat.

Between the 20th and 21st August, the disease seemed to have reached its height, the violence of the fever having abated on the 21st. On the 22d, the fourth day of the treatment, until which time the above prescriptions had been strictly followed, the boy, after a quiet sleep of three hours, awoke perfectly conscious, the speech became distinct, he was quiet, the tongue was moist and red, the thirst moderate, the skin moist and disposed to perspiration.

As this state justified my concluding, that the fever had passed its height, that the skin, which had been exhausted by the former fever heat, was now strengthened, and that consequently the disease might be brought to a desirable end, by a salutary perspiration. I ordered the patient to be put into an empty tub, as soon as the fever commenced, and to be well rubbed with a linen sheet, large enough to cover his body, which had been dipped in cold water, and had been wrung well, and then to be brought to bed. After this, he was immediately to be wrapped in a wet sheet, have fomentations applied to the abdomen, and to be well covered; after he had become warm, cold water was to be given to him in small quantities. After an hour and a half, during which time, I let the child sleep, a salutary perspiration made its appearance, which, for the first day, I allowed to operate, one hour, for the second, an hour and a half, and for the third, two hours; after which we put the little patient into a bathing tub, in which he was every time well washed, rubbed both wet and dry, and in such a manner, that the first time the bath consisted of water of 15° Reaumur ($65\frac{3}{4}^{\circ}$ Fahrenheit), the second of 12° Reaumur (59° Fahrenheit), and the third of 8° Reaumur (50° Fahrenheit).

After this curative process, the disease yielded so rapidly,

that on the 26th August, the eighth day of the treatment, it had entirely disappeared, the appetite returned, and all the bodily functions were performed regularly.

Nothing but a trifling bodily weakness remained behind, which in four days, with a regular diet consisting of milk and cold meats, and with rubbing twice a day with wet linen cloths, was so entirely overcome, that the child ran about the house, as well as ever, on the 1st September.

Lais Pepper, Lutz, thirty years of age, of strong constitution, having for some time complained of a violent cold, was on the 29th December, 1850, attacked by a shivering, followed by heat, without perspiration. After the fever had lasted for six days, and all the remedies, which had been applied had proved useless, I was called in.

I found the patient in bed, in a weak, unconscious state, his eyes looked fixed and glassy, the head heavy, the tongue dry and hard, the lips dry and chapt, the teeth covered with a brown crust, the breath hot and short, and frequently interrupted by dry cough, the face haggard, perspiration, none, sleep since five days, none, stools from six to eight every day, looking black and thin; urine, very seldom and bright yellow; the lower part of the abdomen somewhat distended, burning hot to the touch, the skin dry, and the whole body like fire, with a rattling in the throat, whilst the patient kept constantly playing with his fingers upon the counterpane.

I recognized the disease as a nervous fever, with increased irritability (*febris nervosa inflammatoria erethistica*), wherefore I proceeded as follows:

Perceiving the danger, I did not even take time to ask for the cause, but ordered a big tub to be brought, had it filled with cold well-water, and soaked dry linen cloths in the water so as to be in readiness.

I immediately caused the patient to be undressed, and to be put in the tub, and had five to six gallons of cold hydrant water poured over his head, until sensation became evident, after this the patient was well rubbed with a slightly wrung sheet, by two persons, and immediately wrapped from head to foot in four-fold wet linen sheets, which were changed every time they began to get hot; on the head I ordered pounded ice to be placed in a bladder, as also fomentations round the neck, and to cover the patient with a blanket. After the third envelopment, which took place every ten minutes, the patient fell into a soft sleep, the breath became purer, and the rattling ceased, and with repeated coughs, the patient brought up a tough mucus. On the eighth enveloping I was able to give him a bit of ice in a table-spoonful of water; this proceeding had to be repeated in the beginning every five minutes, afterwards every ten minutes. Two hours after having commenced my treatment, the patient became sufficiently conscious, so that I could ask him, whether he would have something to drink, and as much cold water was given him as he wanted. Since twenty-four hours he had refused to take anything, and had not eaten for six days. This treatment was continued for about five hours, but as, in spite of the returned reaction of the skin, which now seemed disposed to perspire, the general torpor would not give way, I caused the patient to perspire in the wet sheet, whilst applications of ice were made to the head; and as soon as the perspiration broke out, desired him to remain in it for half an hour, when a little thin broth was given. As the heat began to increase I ordered him to be washed in cold water, and to have the cold enveloping continued. Twelve hours after the commencement of my treatment, I let the patient again get into a perspiration, when I allowed him to continue in it a

whole hour, then, had him washed, put into another bed, and wrapped in a dry sheet. The application of ice was now changed for cold fomentations around the head and neck. The patient was perfectly conscious and took several cups of broth. The wrapping was changed, only every three to four hours, which was continued until the third day of my first treatment, January 6th, 1851; when all symptoms of sickness had disappeared, only cold ablutions and cold fomentations on the head, were applied, which were continued for a while after perfect recovery.

I thought it right to give here a short sketch of this case, as it occurred but very lately, and as a similar case might not present itself so soon, for there must be physicians, who doubt the efficacy of a natural treatment, and who would be glad to become convinced of the contrary, which in this case would be very easy, as there were ten or twelve eye-witnesses to the successful termination.

HIP-DISEASE.

THIS complaint is frequently overlooked in the first period of its duration, and thus becomes one of the causes by which many children are crippled; it forms three stages.

Either from inherited causes, such as rickets, (rachitis), scrofula, gout, mercurial diseases etc., or from a blow, push or fall, an inflammation in one or the other of the upper-articulations of the thigh bone, terminating rapidly or slowly, forms the beginning of the disease, and the first period of this so much dreaded complaint, commences in the following manner.

FIRST STAGE, OR THAT OF INFLAMMATION.

In the beginning of the disease, there is, in the upper part of the thigh, a feeling of numbness, which is soon followed by a feeling of fatigue in the morning, and subsequent stiffness of the same leg, but which disappears later during the day. The patient now begins to complain of pains in the same hip-joint, which continues to increase, and generally are worse in the evening, move about in the thigh, and take a rheumatic character, to which fever soon accedes. These symptoms may continue, when the course of the disease is slow, for months, even years, without any morbid change in the hip-joint, perceptible to the eye or to the touch, it alternates generally from better to worse, whilst the foot is turned out a little, and the walk is dragging. Frequently, however, when the inflammation is rapid, the pains become violent, a perceptible swelling behind the great trochanter (the process of the thigh bone) makes its appearance, and the moving of the leg becomes impossible.

Washing the whole body twice a day, and the whole leg four times a day, in cold hydrant water for three or five minutes each time, cold fomentations round the whole hip-joint, to be changed as often as they begin to get warm, a strict, well regulated diet, and rest of the body, will in most cases, cure the local complaint.

When this local inflammation has been entirely overcome, we should proceed by a general treatment of the existing original cause, which, when the physician finds the disease already in the second or third stage, must be applied at the same time with the local treatment. But, in case the inflammation should be so violent, that it will not yield to the above described treatment, then, pounded ice in an ox-

bladder should be placed over the suffering part, and be renewed as soon as it is melted. When there exists at the same time some continuous inflammatory complaint, the patient should be wrapped from two to six times every twenty-four hours in a wet sheet, and be washed every time, until the inflammation ceases.

THE SECOND STAGE, OR THAT OF EXUDATION.

When through neglect, or improper treatment, the inflammation has advanced and already changed to exudation, there is formed in the socket of the joint a salty mass, which relaxes the round ligament by which the thigh-bone hangs in the socket, pushes out the head of the bone, and in this manner effects a prolongation of the diseased extremity. Thus the second stage has commenced. Now the affected side appears somewhat flatter than the sound one, the crease is deeper, the muscular part of the thigh becomes gradually more flaccid, the whole leg grows thin, and the great trochanter turns more outwards and downwards. At every motion, by which the head of the bone is pressed against the socket, the pain becomes more violent, so much so, that the patient often exclaims that he cannot bear it; the walk becomes more and more limping, the whole weight of the body rests upon the sound leg, which appears stretched out, while the affected limb is bent at the knee, and appears lengthened in the thigh, whereby it is brought nearer to the sound limb, and the foot generally is turned further out. The above described pains begin to diminish, and are worse only when there is pressure against the socket, but as the second stage advances, they also attack the knee of the same leg, so that this pain becomes much more violent du-

ring the night, than that of the hip-joint, and often prevents the patient from walking.

In this case also a radical cure, although it may be delayed somewhat longer, than when treated in the first stage, is certain, if we apply the water properly. Here it must be effected by an increased power of reaction, by which an absorption of what has already exuded is caused. The patient must be treated according to the following rules, modified by his constitution and temperament.

With a sluggish temperament, and when the swelling feels doughy, the patient must sweat in dry linen sheets and a blanket, but with a lively, quick, irritable temperament, in damp sheets and a blanket, once or twice a day, each time, from one to three hours, according to the strength of the patient and the progress, the disease has made, after which he is to take a cold bath, from two to five minutes, agreeable to the necessity of increasing the power of reaction, and to the time the perspiration has lasted.

After this, affusions of from one to three gallons of water are made over the hip-joint, that is to say over every part of the hip in streaks, and day and night ice is worn over the whole surface of the joint. After the affusions, moderate exercise in the open air should be taken.

THIRD STAGE.

In the third and highest stage, the complaint terminates by suppuration, caries of the head of the bone, suppuration of the surrounding parts, wasting of the leg, or general wasting away, and its consequence, death; or if the child be saved, it remains a cripple.

The third stage has commenced when the limb becomes shorter, which happens in consequence of the already ef-

fect destruction of the head of the thigh-bone. This has retreated into the socket, which for the same reason has become larger, or it is thrust out of it. But in most cases there arises around the whole hip-joint a swelling, which begins behind the large trochanter, opens in one or more places at once, voids a quantity of bad pus, which becomes thinner and more unhealthy, frequently carries away with it bony matter or small pieces of bone, forming fistulous passages, which heal badly; emaciation with clammy perspiration and fever in the morning appear, and the leg wastes evidently away, or swells œdematously (watery) while the pains decrease.

The treatment in the third stage is like that of the second, only that when already a hectic fever exists, the patient should be wrapped in wet, instead of dry linen sheets; he should never sweat, but the skin only become moist; the half baths are only to be applied as far as over the hip, from two to five minutes, whilst the rest of the body is thoroughly rubbed with a wet linen cloth. The existing wounds should then be syringed with cold water.

Several cases of successfully treated disease of the hip, would furnish me sufficient matter, to introduce here the history of some cases of this complaint, but as I have already expressed myself fully on the manner of treatment, I shall omit them, in order to gain room.

MILIARY FEVER.

THIS disease is a contagious, eruptive fever, in the course of which rounded vesicles of the size of millet-seeds are formed, which frequently, not only cover the whole body, but also spread over the mucous membrane of the respira-

tory organs, the salivary glands, and of the alimentary canal; it is characterized by a continued copious sweat.

This eruption is innoxious, with moderate diet and in a mild temperature it passes off regularly, and after three or four days dries up, unless it should disappear by itself, in which case, if this takes place in consequence of a cold or improper diet, the miliary fever is apt to fall upon the brain or other important organs, and thus endanger life. This fever, however, seems to remain for a while, in the same locality and even to return to it.

Although the Miliaria frequently appears as an epidemic, I have found, notwithstanding, that in some places it is at all times, and that in certain localities, it appears every year sporadic (from occasional causes), and not unfrequently becomes endemic. Miliaria, in consequence of its different forms is divided into several subdivisions. Thus we distinguish the crystal, the white, the red, the purulent, the lentil-shaped miliaria, it is also divided into innoxious, malignant, febrile, critical, chronic, etc.

These divisions, however, as well as their peculiar form, have as little to do with the treatment as the distinction of epidemic and endemic. This, with the exception of any accessory local complaint, can only differ by the more or less violent symptoms, the existing process of inflammation etc., as is the case in all eruptive diseases.

The principal thing in the treatment of miliaria, of every kind, is to keep a watchful eye upon the diet of the patient, and the temperature in which he lives. The former should consist of some milk porridge, or some light boiled fruit, best, apples, and for a drink, fresh water, which, however, should not be taken in too large quantities, and too often. As to the temperature of the sick chamber, it should in this, as well as in all other acute eruptive complaints never

be above 16° Reaumur (68° Fahrenheit), and never below 14° Reaumur ($63\frac{1}{2}^{\circ}$ Fahrenheit), in which the patient should only be covered moderately.

In the many hundred cases of inflammatory, cutaneous eruptions with sick children, which I have treated, if cold or other causes had not driven in the disease, or forced it on some other organ, I have invariably found, that mild ablutions twice a day in water of from 15° to 18° Reaumur ($65\frac{3}{4}^{\circ}$ to $72\frac{1}{2}^{\circ}$ Fahrenheit), were sufficient. When there is great heat, dry skin, and raving, enveloping the whole body once or several times in damp sheets will produce a salutary sweat, the eruption of the disease, and the removal of all threatening symptoms. At the time of desiccation, baths of four or five minutes in a temperature of 18° to 20° Reaumur ($72\frac{1}{2}^{\circ}$ to 77° Fahrenheit), suffice to restore the child in six or eight days completely.

If miliary fever appears in consequence of other diseases, or if it is accompanied with derangement of the digestive organs, the treatment should be modified according to the original causes, by some addition, such as plentiful drinking of water, cold fomentations and injections. The same is the case with that kind of miliary fever, which appears in the course of a gastric, nervous or putrid fever. A peculiar kind of miliaria we have now in the fever, which appears in the beginning of the hydropathic treatment, or after cold enveloping and fomentations, which forms no essential phenomenon, and is not worthy of notice, as it disappears under the same circumstances under which it appears. It is different however with that miliary fever, which appears, after frequent sweating, in this case the sweating should be discontinued.

Susan de Castolitz, daughter of a major, twelve years of age, a very handsome girl, fair haired, with blue eyes,

very delicate, of a mild character, was confined to her bed on the 9th of March, after having complained for a couple of days of weakness of the limbs, headache, and some difficulty in swallowing.

I found the little patient, at ten o'clock, on the same day, in a paroxism of fever, which was very considerable. She talked incoherently, complained of headache, inclination to vomit, pressure in the region of the stomach, and difficulty of swallowing. The thirst was great, the skin burning hot, and dry, stool for the last two days none, the urine reddish and clear. Taking these symptoms at any rate for the precursors of some cutaneous eruption, I should have thought that the child was breeding scarlet fever, if I had not known that miliary fever prevailed, at the same time, in several houses of the place. I therefore ordered the little girl to be washed in water of 15° Reaumur (65 $\frac{3}{4}$ ° Fahrenheit), over the whole body, to be wrapped in a linen sheet, which had been dipped in hydrant water, and been well wrung, to have cold fomentations put round her head and neck, and these, as well as the sheets, to be changed as often as they became warm. Already when wrapped up for the third time, six hours after the commencement, a little eruptive efflorescence appeared. In the evening towards seven o'clock, during the third enveloping, the child fell into a perspiration, which, in the course of three quarters of an hour, spread uniformly over the whole body. I left her in the perspiration for about two hours, until near nine o'clock, P. M., and ordered, during this time, the drinking of much cold hydrant water, and the changing of the fomentation of head and neck. After this the patient was taken out of bed, dripping with perspiration, and as the whole body, particularly the breast appeared scarlet red, she was put into an empty tub, was well rubbed with a linen

cloth which had been dipped in water of 15° Reaumur ($65\frac{3}{4}^{\circ}$ Fahrenheit), wrapped wet in a dry sheet, put into bed and well covered, after which she fell into a profound sleep.

Towards one o'clock the eruption had appeared over the whole body, and as the heat increased again at one o'clock A. M., I had her taken out and washed quickly, after which we proceeded as before.

The day after, that is the 10th of March, as also the 11th and 12th, the ablutions were repeated every six or eight hours, but, as the headache, sore throat, and difficulty of swallowing had disappeared entirely, I ordered the fomentations round the head and neck to be omitted.

On the 13th, 14th, and 15th March, to promote the exfoliation, full baths of 16° Reaumur (58° Fahrenheit), were ordered once a day, at eleven o'clock A. M. They were to last two minutes, whilst the extremities were constantly being rubbed, after which the sick child was again enveloped wet in a dry sheet and put to bed.

On the 16th, the patient was allowed to walk about the room, and on the 18th, she was declared perfectly well, and although the atmosphere was raw, taken into the fresh air, which agreed with her perfectly well, no subsequent symptoms of the disease making their appearance. Notwithstanding the sudden commencement of the disease, and the violence of the fever, the eruption, until entire exfoliation, lasted only a week, was connected with no danger, and the transition from sickness to health was so sudden, that no period of convalescence was perceptible.

TETTER.

THIS disease consists of a series of eruptions, including a number of species or varieties, which are known under the name of Tetter. We shall divide them into six classes.

1. The scab-tetter, which mostly appears in the face, on the breast, upper and lower limbs, particularly on the elbow, first forms a red spot, upon which small vesicles collect in groups, soon flowing together, exuding a white yellowish fluid, then drying up, and forming a chapt, dirty scab, under which, a fluid, similar to the one before mentioned, collects again. Children are particularly subject to this kind of Tetter.

2. Dirty-spotted tetter, a variety of the last described; in the beginning, a dirty spot appears on the skin, on which there arise single vesicles, which open and form a scab of a dirty grayish white, the first layer of which comes off in scales, whilst the skin underneath looks sore.

3. The bran or flour-tetter forms innumerable small pointed vesicles on the surface, which open with an itching and biting, then dry up, and leave the skin in a condition as if it had been strewed with coarse flour or bran; when these scales are wiped away, the skin appears red, uneven, and sensitive, but immediately the scales reappear.

4. The fish-scale tetter resembles that, described under No. 3, only with this difference, that the scales of this is larger, and lie in two or three layers, one on top of the other, and that they itch much more than the flour-tetter.

5. Purulent-tetter, also a variety of the scab or common tetter, of a red color, and surrounded by a violet or red areola. The elevated vesicles burst in a short time, and

form a scab, under which there is pus, which frequently eats deep into the flesh. This, however, is only the case with children of very bad juices, and those who live in very damp dwellings.

6. The last variety of tetter with which we become acquainted deserves particular notice. This seldom attacks young children, but mostly, young girls, before the commencement of menstruation. It appears always, at one or the other angle, which the wing of the nose forms with the cheek, in the form of a dark-red spot, in the midst of which, one or more pointed vesicles, containing pus, are formed, with a violent burning pain, and discharging a yellowish gray pus, the greenish scab of which, does not only eat into the skin, but also into the weak muscular parts, situated underneath, and into the delicate cartilage of the nose, producing frequently not inconsiderable injury to the nose and cheek.

With children, the principal causes of tetter are inherited, medical or mercurial diseases, uncleanliness, dwellings, which are damp or near marshes, spicy food and spirituous liquors, embrocation of corrosive ointments, scrofula, enlargement of the abdomen, &c.

The duration of the tetter varies, for the eruption frequently disappears of itself, and returns, goes from one spot to another, and often covers the whole body.

As to the treatment of the disease, it does not differ much for the several varieties; it is very simple, but sometimes very tedious. A strict diet must be attended to, particularly by the mother, when the infant is affected with tetter, she should avoid every thing that can be injurious. For children milk only, or farinaceous food, not too fat, is most salutary; where there is enlargement of the abdomen, some meat, boiled fruit, and sour milk should be allowed.

The treatment itself, with children, is simple and successful, on account of the prevailing power of reaction, but the cure of that kind of tetter which depends upon predisposition becomes very tedious.

The constant wearing of fomentations with a dry covering over it, around the part which is affected by tetter, to be changed as often as they begin to get dry, is absolutely necessary; also perspiring twice a day in dry or damp sheets. When the tetter on the body is extensive, and when the spots which it occupies are much irritated, burning or itching, the patient should perspire in damp sheets, from one hour to three; otherwise in dry sheets, after which he should be placed in a bath from 15° to 18° Reaumur ($65\frac{3}{4}^{\circ}$ to $72\frac{1}{2}^{\circ}$ Fahrenheit), and left in it for five or ten minutes, and if the whole body is not covered with the eruption, he should be first rubbed with a wet, and then with a dry cloth. At the same time he should drink plenty of cold hydrant or spring water, and walk or be carried twice a day into the fresh air.

During the first part of this radical treatment, the eruption generally increases; when before it appeared insignificant, it now spreads over the whole body, but soon dries up, and we may rest assured that it will not make its appearance again under any form whatever.

ENLARGEMENT OF THE MESENTERIC GLANDS IN INFANTS.

THIS disease manifests itself by frequent crying of the child, uneasiness, sleeplessness, vomiting of the mother's milk, just swallowed, enlargement and swelling of the ab-

domen, in which we can plainly feel small lumps, and finally by costiveness.

After slight perspirations twice a day, a bath of 18° to 20° Reaumur ($72\frac{1}{2}^{\circ}$ to 77° Fahrenheit), which is to be reduced daily two degrees, until we arrive at the natural heat of hydrant water, first during ten minutes, later during five minutes; wearing constantly, well wrung cloths round the abdomen, a strictly regular diet of the mother, and remaining in the fresh air, will in a few days, overcome a disease, which not unfrequently is the cause of continued sickness, and has proved fatal to a great many children.

JAUNDICE.

OF this disease, which attacks nearly every child, as soon as it is born, there are three varieties, that of the newly born infant, the acute, which is of short duration, and the chronic or bilious. Sometimes it appears in consequence of some other disease, inflammation of the brain, of the liver, bilious fever, etc.

The treatment of the first variety, which always disappears quickly, when properly attended to, is very simple, natural evaporation in bed, then twice a day a bath of five minutes each, in water of 20° Reaumur (77° Fahrenheit), will in a few days effect the absorption and the secretion of the effused bile.

The acute jaundice, which in a few hours, covers the whole body, as if it had been dyed, is generally connected with an irritable, febrile state. For this variety, sweating once or twice in wet sheets, for an hour and a half, followed by a bath of from 18° to 15° Reaumur ($72\frac{1}{2}^{\circ}$ to $65\frac{3}{4}^{\circ}$

Fahrenheit), and strong wet rubbing, is of essential service.

Chronic jaundice is mostly caused by obstruction in the upper part of the alimentary canal, or of the mesenteric glands; the abdomen is generally inflated, and costiveness accompanies it. This complaint, I have found to yield very soon to the following treatment. Cold fomentations should be applied and be changed as often as they begin to dry up, injections should be given, and the child should once or twice sweat in dry sheets, after which, it should be bathed entirely, in water of 15° Reaumur ($65\frac{3}{4}^{\circ}$ Fahrenheit), from two to three minutes. If the disease is stubborn, recourse may be had to affusions, throwing the cold water from four or six small watering pots over the body.

In all these cases we must pay attention that the patient drinks freely, and is brought into the fresh air. As to the kind of jaundice which appears as consequent upon one of the above named complaints, the treatment must be regulated according to the particular form of the disease, as soon as this latter is overcome, the jaundice will also disappear. The diagnosis of this complaint is very simple, for we recognize it by the color of the skin; but generally it is preceded by lassitude of the limbs, diminished appetite, a bitter taste, foul covered tongue, red and afterwards brown urine, and indolent stool; the white of the eye turns a pale, and later a darker yellow, which appears mixed with red.

INFLAMMATION OF THE THROAT.

As the croup has already been described in a former chapter, I mean here by inflammation of the throat, only the inflammation of the cavity of the mouth, the tonsils, the veil of the palate, the cavity of the throat, the sub-maxillary and the parotid glands (mumps).

This kind of inflammation occurs most frequently with children after taking cold, during damp weather, attended by catarrh and catarrh fever; sometimes this disease appears general. Besides the diagnosis attained by the sight, the above mentioned parts appearing inflamed and swollen, particularly the parotid glands, where the swelling and inflammation reach a very high point, we also observe fever, alternating with heat and cold. The former soon begins to predominate, and deglutition becomes difficult, so much so, that frequently the patient is unable to swallow as much as the smallest quantity of water.

The treatment should be regulated according to the degree of inflammation. In the beginning, or even when the part of the throat affected, is so much swollen, that swallowing has become difficult, but without much febrile action, a simple treatment will yet suffice: Washing the head and neck during the day, frequently, with fresh hydrant water for four or six minutes, putting on a four-fold linen rag, which has previously been dipped in cold water, and in the beginning been slightly wrung, in the form of a cravat round the neck, from the tip of one ear to that of the other, changing it for another as often as it gets warm. This wet cloth must be carefully covered with a dry one, which latter, however, should never be drawn

tight. At the same time the patient should take every ten or fifteen minutes, a mouthful of fresh water, and keep it in his mouth until it gets warm, when it may be spit out. Accordingly as the inflammation abates, the number of the ablutions should be diminished, the cloths round the neck be more thoroughly wrung, and only changed when they begin to dry up.

When the inflammation and the swelling in the throat has made considerable progress, when the swallowing has become very difficult, when there is fever, and the skin is dry and hot, let the patient, in addition to the former treatment be wrapped up in slightly wrung linen sheets, which must be changed, as soon as they begin to get dry, that is to say if the fever has not abated. If this takes place, and the power of swallowing is not immediately restored, ablutions of the whole body twice a day should be added to the fomentations, and water in the mouth, also short affusions over the head and neck are of essential benefit. Very seldom, and only when there is danger of suffocation, from the violence of the swelling and inflammation, may the hip-bath, with constant rubbing of the lower extremities, be applied, and continued from five minutes to half an hour.

But when the inflammation has already advanced so far that no resolution of the swelling of the almonds or parotid glands is possible, when one or the other of the glands has begun to suppurate, or threaten to become indurated, we should induce perspiration once or twice a day, from one hour to three; followed by ablutions or affusions, besides the fomentations round the neck, which should only be changed when they have become almost quite dry, and the water, which should be kept in the mouth as long as possible. During the whole period of inflammation of the throat, the patient must drink nothing but cold thin cow's

milk, and cold water, frequently, but only a little at a time.

Inflammation of the throat, treated in this manner, will continue three days or more; in the worst cases, as many as ten, but the patient will rarely be troubled again by the same complaint.

Frank William W., six years old, a fair haired boy, of bloated appearance, and stout, was suddenly attacked by violent inflammation of the throat; mustard, leeches, poultices around the neck, sudorifics, resolvents, and purgatives, together with resolvent washes for the mouth, had been applied without any good result, and when the danger had reached its greatest height, I was called in.

The boy was in bed, very uneasy, a rattling noise in his throat, the head thrown back, whilst breathing very heavily through the nostrils. The head was affected, the look fixed, the mouth open as far as the swelling admitted, and the skin very hot. The thirst excessive, but could not be satisfied, because all that the patient put into his mouth, was again discharged by the nostrils. The fever was on the whole very violent. The two parotid glands were swelled to the size of a child's fist, and in their centre could be distinctly felt the fluctuation of pus, already formed. Only with great difficulty, and by the help of a silver spatula and a light, I succeeded in obtaining some idea of the state of the cavity of the mouth. I found the tonsils, the uvula and the soft palate so much swelled, that the two former concealed the uvula between them, and closed the whole cavity of the mouth. Only by pressing down the tongue forcibly, an opening of the size of a small quill, could be seen in the throat, whilst on the left tonsil a white spot of the size of a lentil could be perceived.

I immediately ordered a bath of 18° Reaumur (72½°

Fahrenheit), to be prepared, and after the boy's head, neck and breast had been washed, I had him placed in it, and left in it for ten minutes, whilst two attendants rubbed his body, hands and feet, with the flat of their hands. After this he was enveloped in a wet, slightly wrung, linen sheet, fomentations were applied to the head and throat, he was covered well up, and half a table-spoonful of water given every five minutes, although for the first six hours, he did not succeed in swallowing it entirely. During the first two days and the first night, the fomentations were changed every quarter of an hour, and later every half hour or every hour; the enveloping was repeated every hour, the patient was then put into a sweat, and left in it for a whole hour; after this he was quickly washed in cold water, and four quarts of water poured rapidly, with six intermissions, over head, neck and breast. Fomentations were then applied close to the head and neck, and the patient put into a dry sheet.

The above described treatment, that is to say, the sweating and affusions were applied twice a day, which proved so successful, that already during the second affusion, one of the salivary glands broke, that the patient was able to open his mouth somewhat further, and to swallow a little milk, in fact, that he was out of danger. On the second day, also the left parotid gland opened, and discharged several table-spoonfuls of pus. Now the fomentations were applied less often, and the boy was obliged to perspire for two hours; from the fourth day of the treatment, one hour twice a day, until the eighth day, after which only the fomentations around the neck and frequent gargling with fresh water were used. On the eighth day of the treatment we had the pleasure of seeing the child in good health, and of the inflammation no sign was to be seen, except a small opening, under the angle of the left lower jaw.

HOOPING-COUGH.

THE whooping-cough is a contagious disease, for the most part prevailing as an epidemic, most commonly attacking children between the age of one and seven years. It manifests itself, in shorter or longer returning paroxysms of a cough, accompanied by a peculiarly whistling tone and several expirations, succeeding each other rapidly, followed by one slow and troublesome inspiration, and attended with retching, or actual vomiting of a tough mucus. Generally the whooping-cough attacks several individuals at once, but more girls than boys, and particularly those of a delicate constitution and of great excitability. I have, however, no recollection in my practice of any case of whooping-cough, where an individual was attacked a second time. After all the observations which have been made on the subject, it appears that the appearance of whooping-cough, depends entirely upon atmospheric circumstances, wherefore the South is more frequently visited by this complaint than the North.

In the whooping-cough we may observe three stages; the first, its beginning, the catarrhal stage; the second, its height, the convulsive stage; and the third, that of its decline. At the beginning of the first stage, the child becomes fretful, weak, sleepy and chilly, the eyes become red and tears run from them, with accession of sneezing, which frequently induces persons to take it for a cold in the head.

The cough appears in paroxysms, whilst the face looks bloated, it is dry, and sounds hollow and clear, the sleep

becomes uneasy, the appetite small, the febrile action varies much.

After the cough has lasted from one week to three, it begins to return in paroxysms of long duration, particularly towards the evening. The patient becomes more uneasy during the night, the cough is attended with greater irritation, sounds much clearer, and after a while assumes a whistling tone. The child frequently makes a motion with its hands towards the throat, as if it wanted to rid itself of something troublesome, whilst a cold sweat appears on its forehead. Before the beginning of the paroxysm, the child becomes so uneasy, that it seeks anxiously for some object, generally for the mother, clings to her, and, as if to escape from the attack, tries to hide with her.

When the hooping-cough has reached its climax, the paroxysms succeed each other so rapidly, that inhaling becomes impossible, and that suffocation seems to threaten. The face now becomes dark red, changing sometimes to blue, the eye of the child is generally turned upwards, wanders about unsteadily, tears flow copiously, the pulsation of the exterior arteries is visible, and the veins at the throat swell; sometimes the blood enters the conjunctiva of the eye and escapes through the mouth, nose and ears; still more frequently the children sneeze, a copious cold sweat covers the face, neck and breast, and involuntary voiding of the fæces takes place. Sometimes the too violent exertion causes rupture and prolapse. During the paroxysms of cough, which succeed each other rapidly, sudden retching or vomiting make their appearance, after which the cough either stops entirely or abates. The child feels fatigued, and frequently complains of pains in the chest. The duration of the complaint varies from one to several weeks. When it continues longer, however, it generally causes

emaciation, and ultimately, death. I have also seen cases where the complaint changed to bronchitis or croup, and death ensued from suffocation. When the complaint is treated hydropathically, this termination is not to be apprehended.

During twenty-two years, many cases have occurred in my practice, which I have treated in different ways, but I must say that I give the preference to the hydropathic treatment, as by this, the disease always terminated quickly and favorably.

The third stage, that of the decline, commences, when the paroxysms of cough diminish in number, in duration and in intensity; when the cough becomes less dry, sounds less hollow, and less metallic. The inspiration and expiration become freer, the skin is more moist and disposed to perspire, and vomiting less frequent.

During the first stage of the hooping-cough, rubbing the body once or twice, and at most three times, with a wet linen cloth, then affusions from a watering pot, and cold fomentations, with cloths that have been well wrung, covered with dry cloths, which are to be changed every fifteen or twenty minutes, and frequent drinking of cold water are sufficient to overcome the disease, at most, in from six to ten days.

During the second stage, according to the duration and violence of the paroxysms, perspiration in a damp sheet for an hour or an hour and a half must be produced, once or twice every twenty-four hours. After this the child must be washed immediately, or when there is much irritation to vomit, must have rapid affusions of from five to six quarts of water over the head, breast, and neck, with six or eight intermissions; the fomentations must be worn round the neck as in the first stage. The result of the treatment in

this stage, is in a manner instantaneous, for, as soon as the physician, who is called in, after the first perspiration, applies affusions, the disease seems to be checked at once in its violence, and decreases at every fresh affusion.

CONVULSIONS.

IN children, particularly when nervous, convulsions are easily arrested, by washing, bathing, making affusions, enveloping the whole body or the abdomen, succeeded by friction and frequent injections, the temperature of which must be regulated, according to the strength of the child and its irritability. The manner of applying the water, that is, the washing or the affusions, &c., must be agreeable to the duration, succession and intensity of the convulsions, which generally manifest themselves by twitching of the muscles of the face and of the limbs, or by tearing pains in the abdomen. When the paroxysms are slight, washing or a bath once or twice a day, is sufficient, whilst, when the convulsions return often, and are of long duration, we must use three envelopings in damp linen sheets and subsequent affusions. When teething or worms appear at the same time, we must follow the treatment, which will be indicated hereafter.

ITCH.

OF this eruption, we have three varieties, the dry or wool-itch, the moist, and the purulent; it is a tedious complaint which can be communicated by contact, inoculation, and wearing the clothes of persons affected with the disease. It manifests itself in the form of small gritty vesicles, which, as

soon as they appear on the surface of the skin, dry up immediately. This kind is called the dry itch, it is the most common, generally arises from uncleanness, particularly with the wool-carders, wherefore it is called the wool-itch; or it forms visicles, which contain a transparent fluid, when it is called the moist or greasy itch. When the vesicles run together and form a crust, under which matter collects; it is called the purulent itch. This complaint manifests itself by a painful itching; which in the cold, is felt less, but which, at a high temperature, is very disagreeable, nay becomes insufferable, preventing those who are affected with it, from sleeping for whole nights.

The itch, or properly speaking, the virus of the itch, (psora), a germ, imperceptible to the naked eye, producing millions and millions of minute vesicles, which cover the whole body, is not limited to the exterior skin, but penetrates into the masses of the fluids, and produces an important effect upon the human body, by causing other diseases.* For, according to the latest discoveries of hydropathy, when the itch has been badly healed by the application of external remedies, such as unguents and baths, the virus recedes, remains for many years in the body, disturbs its health in various ways, and may become the cause of a host of diseases. It may produce predisposition for swelling of the joints and lymphatic tumors, insanity, &c., of which we have numerous authenticated instances on record, in later times, and of which every hospital will furnish abundant examples, as there are always plenty of patients, afflicted with this disease.

The cure of the itch is, although slow, particularly when of longer standing, at any rate safe and thorough, which is

* In my "Botanical Practice," I shall therefore devote particular attention to Cutaneous diseases.

all important; and the virus which may have been concealed in the body for years, is driven to the surface.

The first condition to cure the itch, is great cleanliness, wherefore all the linen worn on the person, as well as the bed-clothes, should be changed immediately. The patient must avoid all sharp, spicy, sour, fat victuals, and all spirituous liquors; he must take plenty of exercise, principally in the open air, and drink freely of water. Accordingly as the itch is more or less general, the patient should be enveloped, once or twice a day, in damp linen sheets and blankets, and left one, two or three hours to perspire, during which time he should not drink. When the patient has perspired sufficiently he should be put in a bath of 10° to 15° R. ($54\frac{1}{2}^{\circ}$ to $65\frac{3}{4}^{\circ}$ F.), and left in it until the chills appear, when he must be well rubbed, and be allowed to go into the fresh air. Besides this, strong friction over the whole body, with damp linen cloths, once or twice a day, is necessary. If crusts or scabs have formed, they should be covered with cloths, steeped in water, well wrung out, over which dry ones have to be placed.

SCALD-HEAD—(PORRIGO.)

THIS eruption usually arises from uncleanness in the mother, from mercurial or syphilitic diseases, from neglected leucorrhœa, the acrimony of which, the child imbibes with the milk. It generally appears on the scalp of the head, but sometimes extends to the face and other parts.

The eruption begins with a few single minute pustules: they rise but little, or not at all, above the skin, in the beginning form little perforated scabs, through which the single hairs pass, afterwards coalesce and penetrate into the skin underneath.

Weaning the child from the breast, which it has hitherto sucked, giving it another, or feeding it, frequent perspiration, followed by washing, and covering the affected parts with linen pads, steeped in a mixture of half water and half milk, are the safest remedies, to free the child as soon as possible from its torments.

Eliza R., seven months and a half old, was pale and thin, the head and half the face were covered with a whitish or grayish yellow thick scab, disfiguring the child most horribly. After many inquiries, the mother admitted that a considerable time before pregnancy, she had a leucorrhœa, which during that period had become worse, but which for the last few weeks had diminished. At the same time she admitted that during pregnancy, particularly during the first stages, she had a peculiar longing for salt victuals, wherefore she had eaten almost nothing but smoked meat, sardines, or herring. To the eating of so many acrid things, I attributed the aggravation of the leucorrhœa.

The child was weaned, and given to a healthy nurse, to suckle it, and the diet of the mother regulated, the child, as well as the mother, had to perspire and bathe, the former for six and the latter for ten weeks. Fomentations of milk and water were applied to the head, and both child and mother recovered entirely, after the above mentioned periods.

COLIC. PAIN OR SPASMS IN THE BOWELS.

THIS complaint differs much in its nature. It may arise from inflammation, costiveness, accumulation of undigested food in the stomach or small intestines,* mucus, worms,

* Called saburral-colic.

flatulency, or from intus-susception (the sheathing of one part of the intestines into another) and the use of lead (the painter's colic).

A colic with inflammation, manifests itself by violent sharp cutting pains in the intestines only, or around the navel, increased by the slightest pressure, and is accompanied by an increased temperature of the skin and great thirst.

Cold ablutions, at least every two hours; wrapping up the whole body in wet sheets; fomentations, with cloths not too thick, renewed every ten or fifteen minutes, over the abdomen, and frequent drinking of water, will remove the complaint in a few hours.

Colic, from costiveness and saburral colic, are very similar, the latter also is connected with costiveness, but in the former, sometimes there is no evacuation from the bowels for many days, whilst the latter, the saburral colic, easily changes its character. The symptoms of this complaint are eructations, sickness of the stomach, inclination to vomit, actual vomiting, pains with a rumbling noise, mostly under the region of the navel, whilst the abdomen feels hard, knotty, uneven, and tumid, and the hardened fæces can be felt in lumps in the region of the colon and the rectum. In this complaint pressure causes but little pain, and flatulency is but a rare symptom.

The mucus and the worm-colic are always caused by excess of mucus or accumulation of worms in the alimentary canal. The former is seldom very violent, but generally lasts long. The abdomen is tense and full, sometimes doughy and soft to the hand, and accumulation is distinctly felt. The stool is generally loose and mixed with mucus. The worm-colic which is caused by an excessive quantity of worms, principally attacks children; the pain comes and disappears suddenly, it is felt generally about the navel,

mostly during the night, and is boring, gnawing, pinching. This complaint appears with many other symptoms, indicating the existence of worms in children.

FLATULENCY.

THIS complaint is caused by the generation of gas in the stomach and in the intestines, the cause of which is generally to be found in a particular weakness of the alimentary canal. The air, which is there produced, consists principally of carbonic acid and hydrogen-gas.

In this kind of colic, the abdomen is distended, frequent rolling is perceived, and the drum-like, hollow sounding bowels, feel tense. The pains come and disappear rapidly, and rise upwards towards the stomach, and even as high as the chest, causing anguish, oppression, shortness of breath, eructations and inclination to vomit. Generally it is accompanied by costiveness, and relief is obtained by discharging the flatus. A certain sign of distinction between this kind of colic and inflammatory colic, which it resembles much, is, that when in colic from flatulency, the abdomen is rubbed, the pain does not increase, but on the contrary, often diminishes.

PAINTER'S COLIC,

FREQUENTLY occurs with children of potters, tin-men, miners, dyers, &c., from the effect of leaden ore, also from drinks which have been adulterated with lead.

The sick child complains of violent pains in the abdomen, which frequently extend to the limbs; it writhes, screams, whilst the abdomen, the hands and the feet are drawn in.

This contraction is sometimes so great that the fingers are compressed in the hands, the feet drawn entirely up to the abdomen, the hands turned, and the abdomen feels perfectly flat, and very often presents a cavity. At the same time the patient feels very feeble, is sick of the stomach, vomits a greenish, bitter fluid, and always suffers from costiveness.

INVAGINATION, INTUS-SUSCEPTION.

THIS complaint consists, as we have mentioned before, in the pushing of one part of the intestines into another, and turning over. It is caused, either by accidental circumstances or accumulation of worms, and endangers the life of the child. Generally, the lower part forms the sheath, but sometimes the upper part, which is far more dangerous. This complaint, which arises generally after a quick motion, when the stomach is full, manifests itself by a peculiar confused look, inclination to vomit, vomiting of the contents of the stomach, of mucus, bile, and finally of fæcal matter. The intestines from above are over-filled to a certain extent, whilst a continuous drawing pain appears, which is increased at every motion of the body. The intestines in this condition feel like sausages.

The treatment of colic from costiveness, from accumulation of fæces, from mucus, worms and flatulency, does not differ much, and the modifications which are necessary in single cases, depend solely upon the violence and the duration of the complaint. The conditions in this case are : 1st, to call forth great activity in the alimentary canal. 2d, to thin the contents, which cause the colic, and to clear the intestines of them. The first is obtained by fomentations on the abdomen, to be renewed as often as they become

warm, by hip and half baths, to be taken every three minutes to every half hour, whilst constant friction is applied to the lower limbs and the abdomen. The second object is obtained by giving the child frequently cold water to drink, and from every two hours down to every half hour, half and whole injections alternately. This treatment in all such cases will quickly prove successful.

The history of the following cases of painter's colic and of invagination will afford an easy survey of the treatment of these complaints.

Anna Maria Stein, eleven years old, had complained, for several days, of pinching pains in the abdomen, and drawing pains in the limbs, when, during the night, she was suddenly attacked by violent pains in the abdomen and contraction of the limbs.

When I saw the patient, her face looked disturbed and rather yellow, her tongue was dry. She complained of a tearing headache, palpitation of the heart, obstinate constipation and violent burning, when making water. The skin was dry and wrinkled; during the paroxysm the abdomen was contracted a little, and the limbs drawn up convulsively.

I recognized this to be a case of painter's colic, and ordered the child to drink frequently of a mixture of half cow's milk and half well-water, injections of the same, one every hour, fomentations around the abdomen, which had to be changed as often as they commenced to get dry, and every two hours, a wrapping up in wet linen sheets. Already after the first enveloping, there was some alleviation, after the third, a copious perspiration appeared. I then ordered the patient to have two gallons of water poured over her, and to have her rubbed; after which she was put to bed, and having got warm, the proceeding was renewed.

In consequence of this treatment, I had the pleasure of seeing the patient walk about quite well, on the third day.

Henrietta Baum, a fair-haired, blue-eyed child, of a delicate frame, five years of age, of bloated appearance, who had been suffering from worms for a considerable time, complained shortly after a sudden leap, of violent pains in the right side under the navel. As the application of numerous remedies had not diminished the pains, but as these had been rather aggravated, I was called in after the evil had already existed for eighteen hours. The face of the child was sunk, badly disfigured, the look anxious, confused, and expressive of the greatest anguish; there was a continuation of bad eructations, interchanged with real vomiting of mucous bile, mixed with single fragments of the fæces.

The child complained of constant pain under the navel, more towards the right side, which were increased by the least motion. From that side upwards, the intestines could be distinctly felt, like big swellings, whilst from time to time, a little brownish excrement, mixed with mucus was voided.

Considering this a colic, caused by the invagination of a portion of the ilium, and perceiving the danger to which every delay would expose the life of the child, I exerted myself to increase the peristaltic motion, both upwards and downwards, in order to effect a separation of the parts invaginated, and at the same time to relieve any inflammation, which might already exist.

The patient was immediately undressed, placed in an empty tub, and cold hydrant-water was constantly handed to her to drink. Whilst the head and the upper part of the body were supported by some person, two other persons rubbed the abdomen and the feet thoroughly, and I poured incessantly, by means of a large vessel, water over the abdo-

men and the thighs, which I continued for half an hour. The water being all the while thrown out, in such a manner that the child was always in an empty tub. In the meantime, small injections of cold water were given every quarter of an hour. Notwithstanding the continuation of this treatment, the invagination remained, but as the child on the whole, felt much easier, as all the threatening symptoms had partially disappeared, and it was shivering with cold, I ordered this treatment to be discontinued for the moment.

Fomentations were now put round the abdomen, an injection was administered, she was brought to bed and well covered up. Half an hour after, when the child had got somewhat warm, the above treatment was repeated. Scarcely had I continued this for a quarter of an hour, when the patient, with a violent jerk, discharged a great deal of wind of a cadaverous smell, which was immediately followed by lumps of fæces, in which there were rolled up ten maw-worms. After this discharge, the child immediately felt easier, and the violent pain, as well as the vomiting ceased.

After this crisis, I had the child brought to bed, and we gave her some thin milk, with sugar and the yolk of an egg, which she did not throw up any more. From time to time, we gave her fresh hydrant-water to drink, and every half hour placed a well wrung cloth over the abdomen and gave an injection; this we continued until evening. For the night however, as all the symptoms had improved, we only kept the fomentations on the abdomen, which were but rarely changed. The next morning, I found the child quite lively, playing in bed. I made it take, for a few days longer, daily, a couple of half-baths, at 15° Reaumur ($65\frac{3}{4}^{\circ}$ Fahrenheit), of three minutes, and made it drink plenty of fresh water. As the child was perfectly well, and no symp-

toms of the previous complaint remained behind, I left, giving the parents some directions for its diet, and I have heard a few days ago, that having followed them, the child has continued in good health ever since.

SWELLING OF THE HEAD OF THE INFANT.

THIS is a swelling, caused by pressure, during difficult and tedious labor, on some part of the head, in consequence of mal-formation of the pelvis, insufficient labor pains, too small an opening of the mouth of the uterus, resistance of the vagina, or of the use of instruments. It is a circumscribed colorless humor with fluctuation.

Small four-fold linen pads, steeped in cold water and well wrung, applied as fomentations, will remove this complaint in a few days.

SANGUINEOUS TUMOR OF THE HEAD OF INFANTS,—(CEPHALÆMATOMA).

A SWELLING which is frequently mistaken for the above described, in new-born infants, which generally is situated on the head, mostly on the right parietal bone, and appears in those who are subject to rachitis and scrofula; it is sharply circumscribed. This tumor distinguishes itself from the former by being small, during the first twenty-four hours, scarcely of the size of a hazel-nut; by the third and fourth day it spreads gradually over its base, is elastic, later, rather flabby, hot and of a bluish color. On a closer investigation near the base, the bone is apparently rough and swollen, which however is not the case, the sense of feeling

being deceived here by the sugillation of the circumscribed fibrous membranes of the skull.

Compresses of the size of the palm of the hand, doubled six times, dipped in fresh water, and slightly wrung, should be tied tight to the child's head by means of a cap of silk oil-cloth. Should this not remedy the evil, small pig's bladders, filled with ice, will generally resolve the tumor in from twelve to eighteen days, if at the same time we bathe the child twice a day. If this does not succeed, and the swelling will not yield, an incision should be made, the blood contained therein, be let out, and the child, whilst it receives the good milk of the nurse, be treated as above.

LYMPHATIC SWELLINGS.

IN consequence of the small degree of vitality, which we find in those parts, where the lymphatic swellings have their seat, the inflammation which accompanies them, proceeds so slowly, that frequently it is scarcely perceived, nay, often remains unnoticed altogether, and is not discovered, when they have already attained an unmanageable size.

For this reason, and on account of the small degree of vitality and warmth which they develope, they are also called cold swellings. They arise generally, when no external injury is the cause, from morbid dispositions, scrofula, gout, syphilis, scurvy, and complaints from mercury and iodine. The disease is preceded, without any local symptoms, by general bad humor, want of appetite, easily becoming fatigued, uneasy sleep, certain feelings, like pricking, &c. On any part of the surface of the body, generally on the neck, between the shoulder-blades, on the back, in the small of the back, on all the joints, but principally on the

knee joint, on the upper part of the thigh, particularly on the breech, where the crease is, close behind the great trochanter, a small flat elastic swelling is felt. It is very trifling, fluctuating in the beginning, like the adjacent skin and afterwards becomes a nut-color, scarcely ever pains, at most producing an indistinct feeling of tension and weight. Several such swellings occur, very frequently, at the same time, particularly on the neck and in the small of the back. If a single one appears, it gradually reaches a considerable size, in which the fluctuation becomes more and more distinct, whilst the general health is more affected. The covering of the tumor, that is to say the skin, becomes, more tense, its color changes still more, and at last becomes a purple, the pains increase, whilst the strength of the patient decreases, febrile action becomes perceptible, and the appearance of the patient becomes unhealthy.

The skin, spread over the swelling, becomes evidently thinner, and at last an opening is formed, from which a thin, purulent fluid, often having a cadaverous smell, is discharged; this is followed by a clear fluid, and if the destruction of the bone has already commenced, by an ichorous discharge. By the large quantity of matter which is formed by excessive perspiration and diarrhœa, which appear at the same time, the physical strength of the child is soon worn out, and it dies of emaciation, in consequence of this lymphatic swelling.

The above described kind of swellings is caused, where the predisposition exists, if no external injury has been received, by a determination of lymph towards a part. The abnormal extension of the walls of the lymphatic vessel, affected by this determination, causes a rupture of the vessel, by which the lymph is effused into the surrounding parts of the tumor, which has been formed, gradually increasing their

size. The adjoining, solid soft parts, are destroyed by supuration in consequence of the said effusion.

These swellings, if they cannot be resolved, change to indurations, which, being themselves unwholesome, cause also inflammation and suppuration, scirrhus and cancer ; otherwise they become suppurating sores.

The treatment should resemble that of the hip disease, in the second and third stage, and for its exemplification, I add the following history of a case in point.

Adolph Frolich, the son of the district engineer, eight years of age, of sickly and weakly parents, himself sickly since infancy, and frequently troubled with scrofula, slim, but bloated in the face, otherwise lively, commenced suddenly to complain of stiffness in the joint of the right knee. As the parents could not observe anything, and were accustomed to hear the child complain, it remained for several days unnoticed, until the boy said, that he could not walk, because it hurt him. On examining the child more particularly, the father found at the utmost edge of the kneecap, rather upwards, an elastic swelling, of the size of a small hazel-nut, which on the second day, was followed by a second one, on the opposite side, farther up, which like the first, disappeared when strongly pressed.

The parents became uneasy, and sent for their physician, who prescribed some powders and some aromatic fomentations of wine-vinegar. After having used these remedies for several days, the swelling spread gradually over the whole joint, and the violence of the pains increased. After this, leeches and mustard blisters were applied for a fortnight, and the tartar emetic ointment rubbed into the knee. Over the knee warm fomentations of hemlock, henbane and flax-seed, which were to act as resolvents, were put, and antimony, calomel, and iodine prescribed to be taken in-

wardly, and also to be used as an embrocation. As all this did not arrest the disease, I was consulted about six weeks after its commencement.

I found the child already in a feverish state, the exacerbation of which towards evening was very violent, perspiration appearing regularly after midnight; the face, as well as the whole skin, through which the little veins were visible, was pale and bloated; the right knee was considerably swelled, the skin shining and transparent, traversed by blue veins; in some spots the skin had been removed by the remedies, which had been applied, in some there was considerable suppuration, and the whole leg was drawn up, so as to form an acute angle, the patient finding it impossible to stretch it out. In three or four places the fluctuation was distinctly perceptible, and in one of them the skin so thin, that a breaking might be expected shortly. At the same time the patient was very low.

The complaint was recognized as an affusion of lymph into the knee-joint, which had caused a so called WHITE SWELLING. I commenced the following treatment immediately.

I had the patient every day, at five in the morning, and at three in the afternoon, wrapped in a well wrung linen sheet, (after he had, on the first application, been washed with tepid water,) had him covered well, and allowed him to perspire slightly in it. After this I caused him to be put into a bath of 15° Reaumur (65 $\frac{3}{4}$ ° Fahrenheit), in which he continued for five minutes; he was then well rubbed, first with a wet linen cloth and afterwards with a dry one. This rubbing was repeated at eleven o'clock in the morning and at eight o'clock in the evening, in such a manner, that the wet friction always lasted a couple of minutes, after which he was put to bed. During the rest of the day and

of the night, an ox-bladder, half filled with pounded ice, was worn over the affected knee. The food consisted of a nourishing meat and of cold hydrant water, and as often as possible, the patient was carried into the fresh air.

After three days, the spot, where the fluctuation was greatest, opened at night, and more than half a pint of yellowish water, mixed with some pus was discharged. This continued for several days, but the discharge diminished in quantity, became gradually thinner, and smelled very bad. Continuing the former treatment, I ordered the knee to be syringed four times a day successively, with a small syringe with ice water, without removing the water by pressure out of the cavity of the knee, after which a single piece of linen was placed upon the opening, and the application of the ice in the bladder was continued. At the same time, as soon as the discharge had taken place, I insisted upon the child's attempting, several times a day, with the assistance of somebody, to stretch the sore leg more and more.

After a fortnight, the sick child had evidently gained strength, the movement of the knee was perceptible, and the swelling decreased considerably. I now let the little patient sweat twice two full hours a day, for eight days, with progressive augmentation; afterwards I let him take a bath of three minutes; then followed an affusion, principally over the knee, which latter was repeated twice a day, after the friction had been used, besides, when applied with the bath; all the rest was continued as before.

The boy improved evidently as well in strength, as also in respect of the sore leg. Six weeks after the beginning of the cure, an eruption appeared, and hundreds of pustules covered the whole body of the child, which were of the form and character of boils, but differing in size, most of which began gradually to suppurate. From that time for-

ward, the swelling at the knee diminished, and after I had discontinued the syringing entirely, the opening in the skin healed. The swelling of the knee was gone, except some enlargement of the heads of the bones, and the boy, eight weeks from the beginning of the treatment, was able to walk about the room, with the assistance of a stick. After six weeks, at the time of the breaking of the boils, I discontinued the application of the ice, and substituted cold damp cloths, which were changed as often as they began to get dry. These fomentations were continued after the boy began to walk. About ten weeks after the beginning of the above treatment, the little fellow was perfectly well, when I merely recommended to wash the whole body, and to make cold affusions over the right knee, every morning for a month longer.

HISTORY OF A PROLAPSE OF THE RECTUM.

FROM too violent screaming, and straining at the fruitless urgency to stool, the child of Charles Aulich, carpenter, two years old, had a prolapse of the rectum. Three days after the occurrence of this accident, I was called in.

I found the little boy suffering from the above mentioned evil, attended with costiveness, which had lasted several days, and distention of the abdomen. The protruding part measured about two inches, was turned and of a bluish color. I immediately ordered that the child should take nothing but some skimmed milk, and sugar and water, that it should receive every half hour a small injection of water, that it should take four hip-baths of a quarter of an hour each, and that cold fomentations should be put to the anus, which were to be frequently changed.

After eight or twelve injections, three copious stools followed, and the abdomen as well as the part prolapsed, became softer. I now slowly reduced the part, with a finger covered with oil, ordered the injections to be discontinued, but the hip-baths and fomentations to be repeated frequently, until the second day, when the child was perfectly well, and nothing of the accident could be seen.

CRUSTA LACTEA.

AN eruptive disease like the scald-head, which arises from the same causes, and is similar in its course. It differs however from the latter, by attacking only the head and face, instead of appearing in pimples, and of penetrating to the roots of the hair or the pores of the skin; it forms one or more layers of scales, and distinguishes itself by small yellowish white pustules, arranged in groups and more or less confluent, changing to a crust, which is of a yellowish green, sometimes of a dirty brown color.

The treatment is the same as in scald-head.

MEASLES.

THIS is a contagious complaint, which not unfrequently prevails as an epidemic, during the spring, and which as the old physicians assert, is, as such, a precursor of the natural small-pox.

The eruption of the measles, attacks at the same time both the skin and the mucousmembrane, as the internal lining of the respiratory and digestive organs, whence, in the beginning, frequent sneezing, with an acrid discharge from the nose, running of the eyes, and cough, also difficulty of

swallowing, pains in the breast, and sore throat, fever heat and a troublesome thirst, a dry skin, and in the evening increased paroxysms of fever. Besides those premonitory symptoms, we have weakness, physical prostration, uneasiness, want of appetite and pains in the limbs.

This eruption appears on the skin, in small red, slightly elevated spots, by which it is peculiarly characterized. In the beginning these spots appear divided, principally in the face like flea-bites, but soon join, and take the form of an irregular crescent, giving to the skin the appearance of being painted like marble. The spots in most cases are collected in groups, cover the whole body, and finally spread over the lower extremities. When the eruption has reached its height, it lasts from three to four days, after which by the scaling of the outer skin, it terminates in about as many days as it commenced. An individual, who has once had measles, is, as a general rule, not liable to be again attacked. When the measles, in their course, are not malignant, and are not connected with a second disease, the treatment, under a diet of milk, and avoiding exposure to cold, is, simple ablutions once or twice a day, with water of from 18° to 20° Reaumur ($72\frac{1}{2}^{\circ}$ to 77° Fahrenheit). This is perfectly safe and will prevent all after-diseases. At the same time the sick child should be kept in bed, neither too hot nor too cold.

But, however favorable, the state of a person, who is attacked by one of the cutaneous eruptive diseases, may be, we should never allow ourselves to become too secure. In no complaints, but these cutaneous diseases, such as measles, scarlet fever and miliary fever, are changes for the worse so rapid, attacking principally the head the chest and the abdomen, and by receding, fall upon the brain, the respi-

ratory organs, and the alimentary canal, endangering the life of the child.

If therefore the physician finds, that the fever is too violent, the skin very dry and hot, the head of the patient suffering from stupor, that he complains of boring pains in the region of the temples, that the eyes cannot bear the light, the thirst is not to be assuaged, breathing difficult, or when, cutting in the bowels with swelling of the abdomen and an aching, or even delirium makes its appearance, he should not delay, although the eruption had already formed and shown itself, to put the patient in wet sheets, to apply cold fomentations to the head, and to give him plenty to drink. After the perspiration has broken out, ablutions with water of from 10° to 15° Reaumur, ($54\frac{1}{2}^{\circ}$ to $65\frac{3}{4}^{\circ}$ Fahrenheit,) are to be applied, and this treatment is to be continued, until the patient returns to the natural state. But when the disease has already reached the brain, we should not delay applying ice to the parts, (in other cases common cold fomentations will suffice), then let the patient perspire, and after that, bring him into an entire bath of from 10° to 15° Reaumur $54\frac{1}{2}^{\circ}$ to $65\frac{3}{4}^{\circ}$ Fahrenheit), leave him in it from one to two minutes, whilst constant cold affusions are made over the head, then, wrap him wet in dry cloths and put him to bed, where the said applications on the head, must be continued uninterruptedly, and he must drink plenty of cold water.

For any diarrhœa, which may remain behind, frequently renewed fomentations round the abdomen, should be applied, plenty of water be given to drink, and three or four injections of water of 10° Reaumur ($54\frac{1}{2}^{\circ}$ Fahrenheit) be administered. In the worst case a lukewarm bath should be used.

Louisa Keller, five years of age, was attacked by measles on the 21st May, with all the described premonitory symptoms, which, after she had been ailing for three days, came

out well, without any extraordinary symptoms, except that of considerable heat.

After the parents had spent a sleepless night, on account of the heat of the child and wandering, which had commenced after midnight, I was sent for to see the child. She was a girl with black hair, and dark complexion. I found great heat, her head much affected, falling from time to time into a profound sleep during which she kept constantly moving her fingers and raving; tongue and lips were dry, breathing difficult, the abdomen distended, the skin dry and burning hot; the eruptions looked a pale red, and according to the report of the parents, had diminished much since midnight. Very thin fæces and urine were discharged, very often involuntarily.

I did not doubt but that the eruption had receded, and was about attacking the brain, wherefore I did not hesitate a moment to put an ice cap on the child's head, to tie well wrung cloths, as fomentations, round the abdomen, and to wrap the whole body in wet double linen sheets, besides giving her plenty of cold water to drink.

Two hours later, there was an evident improvement, and the congestion of the head had much diminished, but as, notwithstanding, the little girl did not perspire, and the temperature of the skin reached again a height of 30° Reaumur ($99\frac{1}{2}^{\circ}$ Fahrenheit), I had her again enveloped in linen sheets, quite wet, and renewed the fomentations. In two hours and a half, a considerable perspiration, and with it, evident diminution of all the dangerous symptoms appeared.

I let the perspiration continue a whole hour, then had her put into a bath of 12° Reaumur (59° Fahrenheit), in which she was left for two minutes, whilst constant friction was applied. After this she was taken out, and three pitchers of water, containing each a gallon, poured over her head.

She was then, with the fomentations round the abdomen wrapt wet in a dry linen sheet, put to bed, and well covered. The ice cap was continued. After this treatment, the eruption soon reached its height, the little patient became quite lively, and in the afternoon, I exchanged the ice cap for common wet fomentations, which were renewed, every quarter of an hour. In the evening the child was washed with water of 10° Reaumur ($54\frac{1}{2}^{\circ}$ Fahrenheit), and slept quietly the whole night. The second day the general health, with some little deviation from time to time, was good, the eruption was vivid, no further congestion occurred, I therefore repeated the ablutions of the previous evening, only twice during the day, changed the fomentations on the abdomen twice a day, and gave the child every three hours a small injection of water of 10° Reaumur ($54\frac{1}{2}^{\circ}$ Fahrenheit). The diet consisted of mucilaginous soup.

The night was again very quiet, without any interruption, and in the morning it appeared that desquamation (scaling) had commenced. I now had the child brought, after slight perspiration, twice a day, in an entire bath of 16° Reaumur (68° Fahrenheit), in which it was left for two or three minutes, and rubbed constantly. This treatment was continued for two days longer, and on the 26th May, the fifth day of the treatment, and the eighth since the beginning of the disease, the child was running about, in the room, and on the tenth in the open air. As a precautionary measure, I ordered the child to be well washed for several days more, on getting up in the morning, with water of 10° Reaumur ($54\frac{1}{2}^{\circ}$ Fahrenheit), and to be well dried, to which the child, who continued in perfect health, became afterwards habituated.

INFLAMMATION OF THE EAR.

THIS is an inflammation, which attacks the ear, either before or behind the tympanum, and is therefore divided into the external and internal inflammation of the ear.

The external inflammation of the ear, with children, who cannot speak, can only be discovered by the existing redness and swelling of the concha, or auricle, (the outward ear). To discover the internal inflammation as long as the child cannot speak, and point out the seat of the pain, is however much more difficult. The physician is but too often led to take this disease for some other evil, and to treat it as such, endangering not only the health, but even the life of the child. The child not being able to complain, the physician frequently does not discover the real seat of the disease, until the afflicting result opens his eyes, when in most cases, it is too late.

Altogether the inflammation of the ear is of an erysipelatous nature, masked under a form of catarrh or rheumatism; wherefore these cases appear more or less under the phenomena of this form, which, when the child cannot speak, will easily lead us astray. When the child speaks, we can obtain the proper information from its words. It is therefore important to attend to the most insignificant symptoms, and to collect them, in order to obtain a proper diagnosis of the disease; which generally manifests itself in the following manner.

The child, which is attacked by an internal inflammation of the ear, either of the lining membrane of the auditory passage, of the cellular tissue, of the periosteum of the same, or of the tympanum itself, is always crying, is very cross,

and sleeps very little. This sleep is interrupted by the least noise, from which the child awakes generally, with a loud scream, weeps, and is quieted with much difficulty. When the child is carried, is rocked in the cradle, or on the knee of the nurse, it cries only the more, frequently without any intermission, until it is quite hoarse or exhausted. When a child, which is attacked by a similar inflammation, is not yet weaned, it will frequently seize the nipple of the breast very greedily, but start back immediately with a loud scream, knock about its hands, and under similar other gestures try to seize the breast again. The pain, however, prevents it from sucking, and it falls away evidently.

When the child is seven months or a year old, it bores with its head into the pillow, and turns the affected side towards it. On being carried, it leans its head with an evident expression of pain in the face, on one or the other shoulder of the nurse, and begins to cry as soon as an attempt is made to take it out of the position in which it feels more comfortable, rubs the suffering organ against the clothing, or with its little hands; cries aloud at the slightest touch of it, and resists every further investigation.

This kind of inflammation progresses rapidly, attacks the adjacent parts, the bone, even the membranes of the brain, and the brain itself. The disease becomes more and more threatening. The pulse which in the beginning had been febrile, becomes intermittent and gradually weaker, the face changes, the eyes turn, single twitchings of the muscles, convulsions, spasms, appear, the voice loses its sound entirely, the child only groans, it becomes stunned. The feet become cold, and death takes place from spasms, convulsions or apoplexy.

The treatment of the external inflammation of the ear, particularly in the beginning, is very simple, for wet fomen-

tations, covered with dry cloths, to be changed as often as they become warm, will suffice.

When the inflammation has farther progressed, or has attacked the internal auditory passage, we should apply, besides the fomentation, which must now be made over the whole temple, foot and hip-baths, lasting a quarter of an hour, every two or three hours. If these should prove insufficient, or the child should be too small, instead of them, half baths, every five or ten minutes. When the children are several years old, they should often take water in their mouths. When there is already fever heat, or if the pain cannot be otherwise allayed, the child should be wrapped up in cold damp sheets, which should be changed, whenever they become warm, and this be continued as long as the pain lasts or begins anew.

If the child becomes quiet, which is a sign that the inflammation has abated, let it be put into a moderate perspiration, and remain in it for half an hour, after which it is to be washed with water of 15° to 18° Reaumur ($65\frac{3}{4}$ to $72\frac{1}{2}^{\circ}$ Fahrenheit). From this time forward the fomentations must gradually be less frequent. In case a purulent discharge should make its appearance, we should syringe the ear with water of 15° Reaumur ($65\frac{3}{4}^{\circ}$ Fahrenheit), three or four times a day, and take the same water for the fomentations.

As to the diet, let the milk be slowly injected into its mouth, instead of allowing it to suck, or if it can already eat, give the pap, with a very small spoon, by which the child will be spared much pain.

By treating inflammation of the ear in this manner, I have always succeeded in conquering the complaint soon.

PEMPHIGUS,

Is a trifling eruption, which appears in separate patches or groups, on the surface of the skin, and which is characterised by small vesicles, containing a serous fluid. These vesicles, for the most part, appear first in the face, and upon the hands, sometimes single and dispersed, sometimes in groups. They terminate by a thin desquamation or superficial excoriation of the skin, or by suppuration when a predisposition for such, exists. The fever, which accompanies this kind of eruption, is trifling and of an irregular character. Pemphigus resembles much the vesicles in erysipelas, wherefore the one is often taken for the other; the latter, however differs essentially, the surface of the skin in erysipelas being shining and red and tense.

Although this eruption, with old and feeble people, and in typhus fever, often takes a chronic form, with children, it always goes off quick and without any malignancy. All that is required, is, to keep the patient in a room, of which the temperature is from 15° to 18° Reaumur ($65\frac{3}{4}^{\circ}$ to $72\frac{1}{2}^{\circ}$ Fahrenheit), and to make him observe a strict diet, which should consist of some milk or fruit. In bed, the patient should be moderately covered, and he should keep the room for a few days. This simple treatment will be sufficient, when the fever-heat is inconsiderable, and the complaint will pass off in a few days.

We may, however, give the patient plenty of cold water to drink, and after the eruption has been at its height, for one or two days, wash him once or twice a day, over the whole body with water of 16° to 18° Reaumur (68° to $72\frac{1}{2}^{\circ}$ Fahrenheit). If there is fever heat, if the skin is dry and hot, let the patient drink plenty of hydrant water, and

have him wrapped up in the usual manner in wet sheets, until perspiration occurs.

This, generally, takes place after the second or third enveloping, when at the same time the eruption makes its appearance, which soon spreads over the whole body. By employing ablutions, once or twice a day, with water from 16° to 18° Reaumur (68° to $72\frac{1}{2}^{\circ}$ Fahrenheit), the scaling will commence, and the patient recover.

CONTUSIONS.

IN case one of the solid-soft parts has been lacerated, the wound should be freed from any foreign body, which might be in it, the large vessels, if there are any torn, should be taken up and tied, the parts which gape much, be sewed by a dry or bloody sutor (*sutura sicca* or *sutura cruenta*) and the parts which are divided or deprived of the skin should be covered with a wet linen rag. After this has been done, wet cloths, which in the beginning are but slightly wrung, are placed as fomentations over the whole of the contusion, loosely, without any other covering, and are changed as often as they begin to get warm. If this should be found insufficient, to allay the existing pain and heat, ice water, or pounded ice should be used. But as soon as the heat and pain decrease, we ought to return to the common cold fomentations, over which now dry cloths should be laid. Accordingly as the pain and the inflammation decrease, and especially when suppuration commences, the wet cloths should be wrung dryer, and remain longer upon the contused part. The treatment must be continued, until the wound is entirely healed; the time necessary, will de-

pend upon the extent of the injury. That this method of healing, without any salves or plaster, is the safest and the shortest, I could prove by a thousand instances.

ROSE-RASH. (ROSEOLA.)

AN evanescent eruption of the skin, which, without any cause, and without any precursors, suddenly appears on the surface, in rose-colored, flat spots, in different parts, successively. It is mostly without any febrile action; appears in the course of twenty-four hours, and disappears as fast as it comes.

This eruption generally passes off without any functional disturbance, all that is necessary, as soon as it is observed, is, to keep the child in the room, in a moderate temperature, and in case heat or, with sensitive individuals, fever symptoms occur, to make two or three ablutions of lukewarm water, and to let the child remain in bed.

ERYSIPELAS.

THIS is a superficial inflammation, with swelling and redness of the skin; it may be divided into two kinds, the true and the false. The cause of the former generally lies in some derangement of the digestive organs, and in a morbid secretion of the bile.

True erysipelas always commences with a fever, which in the evening begins with cold and terminates with heat. Prostration, a bitter taste, inclination to vomit, with loss of appetite, headache, and thirst, are the premonitory symptoms, which, at latest, in twenty-four hours, are followed by

the appearance of erysipelas in some part of the skin, generally in the face. The affected spot, the skin of which appears tense, becomes red and swells, and the pressure of the finger, leaves a mark behind. Often, after the expiration of a few hours, several vesicles of different sizes are formed, on the reddened surface; these are filled with a clear, transparent, yellowish fluid, and frequently open in less than twenty-four hours; when others form immediately in other parts of the body, though generally the seat of the disease is in the face as before observed. The true erysipelas passes rapidly through its different stages, particularly the postulous, which invades the face, and which disappears in one place, and immediately reappears in another, also frequently flies to some other organ, particularly the brain, when it becomes very dangerous.

The false erysipelas occurs in consequence of external influences, such as, cold, heat, a cut, stimulants. This kind of erysipelas differs in the manner of its commencement and its feeling, it seems doughy, is of a pale color, often with a bluish cast, and very seldom forms vesicles.

Besides the two mentioned species of erysipelas, and their varieties, the detailed treatment of which I reserve for my work, which will shortly appear, the infantile erysipelas remains to be noticed, which frequently attacks children, during the first days of their existence, and sometimes as late as the tenth and twelfth week, generally preceded by miliary eruption and jaundice. The original cause of this is mostly to be found in the cutting of the navel-string, with a blunt pair of scissors, wherefore this kind of erysipelas frequently begins at some part of the navel, and thence spreads quickly over other parts of the body. Although according to the older observations, erysipelas in the face, partly on account of the adjacent brain, which very easily

sympathizes with the eruption, partly on account of a disposition to suppurate profusely, and to form tedious ulcers, as also that the violent inflammation changes so easily to gangrene, has always been described as dangerous, yet I have not had in my practice, for the last fourteen years, both in and out of hospitals, a single case, which has terminated fatally; on the contrary, since I have commenced to use the water, I have always succeeded in checking the inflammation early, thereby obtaining a safe cure.

The treatment of the different kinds of erysipelas does not vary essentially, and is principally regulated by the degree of fever and the height of inflammation of the affected parts. These must be covered in proportion to the degree of inflammation, and sensitiveness more or less often, with well wrung fomenting cloths, over which dry ones, that lie close, are to be put. Care should be taken not to irritate the part too much by changing the fomentations too often, and expose the diseased limb or the whole body too long to the draught, thereby cooling it, and interrupting the necessary and salutary evaporation of the skin; this would do more harm than good. Perspiration is absolutely necessary, to resolve the erysipelas, and to cure the fever, and on single spots is induced by fomentation, but over the whole body by entire enveloping, which must be renewed as soon as the surface of the skin becomes dry, hard, and disposed to chap, or the heat in the linen sheets becomes unbearable for the patient. If in consequence of the enveloping, the skin becomes gradually softer, and more moist, if even perspiration makes its appearance, this should be kept up by covering the patient well, and by his drinking frequently cold water. If this has continued from one hour to three, accordingly as it may be judged necessary, the patient should be washed with water of 16° to 22° Reaumur (68° to $81\frac{1}{2}^{\circ}$ Fahrenheit),

the local fomentations being applied, he should be wrapped up dry, and be well covered. Only when the skin becomes hot and dry again, or the fever and the local affection will not diminish, should the enveloping be renewed. During the whole time, attention should be paid that the patient drinks often cold water, that, in case there is any constipation, it is remedied by half and whole injections, and by drinking one half sour and one half sweet milk; as also by keeping a strict diet, and during the process of inflammation, eat nothing but clear broth or some milk. When the fever has passed its height, the patient may take some fruit, and later some preserves with wheaten bread.

Respecting the treatment of the infantile erysipelas, I must add, that the sheets, for wrapping up the infant, should be of old fine linen, and adhere close to the skin. The child should be well covered, the heat be checked, and perspiration be induced as soon as possible.

TETANUS AND LOCK-JAW.

THIS complaint seldom appears alone, but generally consequent upon other diseases. With children it is mostly connected with worms, or with epilepsy; with girls not unfrequently with chlorosis (green sickness) and very often in consequence of external injuries.

This disease generally appears suddenly, without any other symptoms, as after chlorosis, with continued contraction of the muscles. The body of the patient, during violent pains, is bent either forwards, or backwards, or to the side, or it is stretched out perfectly straight. Before the attack commences, the child generally becomes uneasy;

difficult breathing, giddiness, palpitation of the heart, pressure in the stomach, disposition to vomit appear.

During the paroxysm, which lasts for several minutes, sometimes for half an hour, the child remains speechless, and unconscious, and when the paroxysm has passed off, there always remains, a peculiar pricking, dull, lame feeling in the limbs.

As to the treatment of the disease, we should pay particular attention to remove the cause, for instance, worms, injuries of the sinews and nerves, foreign bodies in wounds, &c., whereby it must be modified according to each case, which occurs.

As to the paroxysms themselves, we can only act upon them directly, whilst they last, and then, only with indifferent success, as long as the cause is not removed; the most that can be done in this case, is a shortening of the paroxysms.

Affusions over the head and back of the child in a tub, with constant friction and half baths, during which the patient must also be well rubbed on the spine, on the hands and feet, render essential services; principally the affusions, because they shorten the paroxysm. I have applied them in the following manner:

I placed the child, which was attacked by tetanus or locked jaw, as soon as the paroxysm came on, into an empty tub, and whilst it was rubbed well and constantly, poured water over it, until the fit went off, or the child became stiff with cold, after this, it received one or two whole injections, was wrapped in dry cloths and left in bed, well covered, until perspiration broke out. After this it was washed with water of from 12° to 15° Reaumur (59° to $65\frac{3}{4}^{\circ}$ Fahrenheit). This proceeding was renewed as often as the paroxysm reappeared. The parts, most affect-

ed by tetanus, should be covered with well wrung fomenting cloths, which are always to be covered with dry ones, and to be changed as soon as they begin to get dry. At the same time the child should drink plenty of cold water, and with lock-jaw keep it in the mouth.

If worms are the exciting cause, besides the above treatment during the paroxysm, two or three hip baths from 10° to 15° Reaumur ($54\frac{1}{2}^{\circ}$ to $65\frac{3}{4}^{\circ}$ Fahrenheit), of ten to fifteen minutes duration, accompanied by constant friction, should be administered, and the child should wear around the body, day and night, a wet belt, which is to be changed, whenever it begins to dry up.

SCARLET FEVER.

THIS contagious disease, which mostly prevails as an epidemic, and which is so much dreaded, is no longer considered as dangerous by those, who have made themselves acquainted with hydropathy. Experience has taught us in our times, that by the use of water, this malady can be prevented, the duration can be shortened, if it has already commenced, and all the dangerous systems be overcome.

Scarlet fever is a disease, which manifests itself by a peculiar kind of spots upon the surface of the skin of the human body, which appear as single, small, red dots, after a fever, of from one to three days. Soon, large, irregular, scarlet or raspberry-red spots take their place, which gradually spread over the whole surface of the body, and which, on the seventh or eighth day, terminate by desquamation (scaling) of the cuticle. The eruption is generally attended by sore throat.

Scarlatina is mostly divided into four kinds; they

consist, 1st, of the simple, mild, terminating regularly ; 2d, of that in which principally the membranes of the throat are affected, the contagious ; 3d, of that without spots ; 4th, of the malignant.

Every kind of scarlet fever may be divided into three stages : the first is that of the eruption, the second, that of maturation ; and the third, that of the desquamation or scaling. The period of the stages has been stated as twenty-one days, when the malady runs its regular course. This period has been shortened from five to eight days, by the hydropathic treatment.

The treatment of scarlet fever depends greatly upon the momentary condition of the patient, and should be modified by his individuality, his constitution, and the stage to which the disease has advanced.

Generally a moderate diet, proper temperature, and washing with luke-warm water of 14° to 24° Reaumur ($63\frac{1}{2}^{\circ}$ to 86° Fahrenheit), will suffice to overcome the scarlet fever in a few days. Yet, when the fever is high, the temperature of the skin increased, when the eruptions seems disposed to recede, we sometimes have recourse to wrapping the patient in wet sheets, which must be changed as often as they become dry.

Generally, the eruption reappears already at the third or fourth envelopment, after which it is only necessary to renew the ablutions.

When there is congestion of blood to the head, cold wet cloths or ice caps should be used as fomentations on the head, the former should also be applied when there is sore throat.

To facilitate the diagnosis of this complaint, and to make the treatment more comprehensible, I shall add here the history of several cases, with different terminations.

SCARLET FEVER OF A MILD AND REGULAR FORM.

AMELIA, a girl of three years of age, of weakly constitution, fair hair, blue eyes, a very fine skin, after having been weak, cross, and without any appetite for several days, was suddenly attacked by a violent fever, beginning with chills; then heat, during which she vomited several times, and became hoarse.

When I had called to see the child, she was in a fever heat, her voice was hoarse, she had frequent thirst, and pains, when swallowing. From these symptoms, and the knowledge that the disease prevailed in that part of the country, in the form of an epidemic, I concluded that it would soon break out here. As by degrees, the child became more uneasy, as the stupor of the head and the heat of the body continued to augment, and towards midnight, the skin continuing dry, delirium occurred, I had her wrapped in a single sheet, which had been dipped in hydrant water of 80° Reaumur (50° Fahrenheit), not wrung too much, and had it renewed as often as it dried up; on the head and neck I applied fomentations with dry coverings, which were renewed frequently; and from time to time, I gave her cold water to drink. After having been enveloped five times, that is after about six hours, the child fell into a quiet sleep, from which she awoke the next day, at ten o'clock, A. M., dripping with perspiration, when, with increased expectoration, the scarlet eruption appeared, first on the neck and breast, and by six o'clock in the evening had spread over the whole body. During this time, whenever the skin began to get dry, I had her washed in the bed with water of 20° Reaumur (77° Fahrenheit) and had her well covered every time. These ablutions we had to perform

four times, in thirty-six-hours. As soon as the eruption had partly come out, I continued the fomentations round the head and neck for thirty-six hours longer, allowed a very moderate quantity of water to be drunk, and had the patient washed twice a day with water of the above temperature. After two days the scarlatina commenced to subside, when I ordered a bath of 18° Reaumur (72½ Fahrenheit), for five minutes, in consequence of which the desquamation proceeded rapidly and easily.

On the fifth day, the child was running about in the room quite well, and in good spirits, and on the seventh it was taken out into the fresh air; this was in the month of May.

SCARLATINA WITH RECESSION AND AFFECTION OF THE BRAIN.

LOUISA BANATH, was child's maid with the little girl, during that sickness, of which we have just related the history; was eighteen years of age, strong, well formed, lusty, of a good figure; she had fair hair, blue eyes and a fine delicate skin.

Already, during the last few days, that she attended upon the sick child, she suffered from the usual premonitory symptoms of scarlet, but on account of the sickness of the child, she concealed her indisposition from her employers, until the morning of the 28th May, when she was no longer able to get out of bed. When I visited the child in the morning, I was requested to see the child's maid in the nursery.

I found the patient in great heat, with stupor of the head, her look piercing, her voice hoarse, swallowing very difficult, the cheeks very red, breathing rapid and short, the skin dry and hot, the pulse full, hard and accelerated, whilst she complained of buzzing in the ears, &c.

To reduce the heat of the body and to induce perspiration, and by this means to bring the eruption to the surface, I ordered, as in the former and all similar cases, cold fomentations round the head and throat, the latter with dry coverings, enveloping the whole body in a single coarse linen sheet, which had been dipped into cold water, and had not been wrung too much. This was changed every two hours, and when necessary, more frequently, whilst the patient drank plenty of water.

After eight hours, that is, after the fourth enveloping, a copious perspiration appeared. Towards six o'clock the eruption was discovered in the face, on the neck and breast, and after ten o'clock, when I left the patient for the last time that day, the efflorescence was fairly out all over the body.

When I was going away, I directed the nurse, a weakly old woman, who had been sent for in the morning, to renew the fomentations on the head and neck frequently, to give the patient to drink, and in case dry heat should occur or she should become restless, to wash her quickly with tepid water of 15° Reaumur ($65\frac{3}{4}^{\circ}$ Fahrenheit), for which purpose, I left her the Thermometer; to cover her lightly, but well, and in case delirium or other suspicious circumstances should appear, to send for me immediately.

The next morning, the 29th May, I drove early, at five o'clock, to a patient, who lived at some distance, and did not return until seven; when I learned that I had been sent for, several times, from the same house, as the child's maid had got so much worse, that she was not expected to live.

Immediately on entering the sick-chamber, I perceived, at the first glance, that in consequence of taking cold the efflorescence, which had but just appeared, but had been very vivid, had receded, and had fallen upon the brain of the patient, and that in consequence paralysis of the brain

was to be feared, for the patient lay stretched out on her bed unconscious, her complexion as white as chalk, the eyes fixed and turned upwards towards the ceiling; her breath was hot, the lips and tongue dry and chapt, the respiration much oppressed, and performed with the motion of the abdominal muscles and the wings of the nose, on the forehead and the lower part of the thighs, cold perspiration, the feet cold, but the rest of the body very hot, the patient mumb-ling to herself unintelligibly, sometimes tossing about her arms, putting her hands to her head or playing with the coverlid.

Perceiving the danger, I took no time to make inquiries, but immediately sent for a large bath-tub, which I had filled with cold hydrant-water, for a couple of pitchers of cold water, dry sheets, a blanket, and several pieces of bedding, which I told them to keep in readiness.

As soon as all these things had been brought, the patient was taken by two strong women, who laid hold of the four corners of the sheet, on which she lay, and dipped her three times, as quick as possible, up to the chin into the water. At every immersion, affusions were made over the head, at which the patient screamed aloud. After this she was placed upon a dry sheet, well rubbed until perfectly dry, and once more immersed, very rapidly, in the water; she was then wrapped in a dry sheet, her neck and head enveloped with cold fomentations, she was well covered, and left thus, until the heat of the body returned, when this had taken place, the above proceeding was repeated. Already at the first time the progress of the threatening malady was arrested; by the second, evident improvement with momentary return of consciousness was effected; and by the third, the patient was restored to full consciousness, in a period of two hours.

Now she was put into bed, dripping wet, and well covered. Towards eleven o'clock the perspiration broke out; the eruption appeared again, and at two o'clock, P. M., covered the body as finely as before. The patient then fell into a quiet sleep, from which she awoke towards five in the evening, and felt quite comfortable, with the exception of a little weakness, and heaviness of the head. During the above treatment, I learned that the patient had fallen asleep after twelve o'clock, that the sick-nurse had felt too hot, and that in consequence she had opened the door a little, after which she had felt weak and very sleepy, and had, as the patient was sleeping quietly, not hesitated to lean her head upon the pillow of the sick woman. In this position she had fallen asleep, about two o'clock, A. M., and had not awaked until half-past five o'clock, in the morning. Finding the sick-bed empty, she had become alarmed, and on seeing the patient, who was lying unconscious, on a chair, near the open window, she had involuntarily screamed aloud, at which the other servants of the house had come in, and had called the master and mistress of the house, who had immediately sent for me, and not finding me at home, had had the unconscious patient placed upon the bed, and had left her there. From the patient herself, I learned, that she had waked up in a great heat, and with violent headache, and having been befallen by uncommon terror, seeing the nurse asleep, she had yielded to her desire for fresh air, had stolen to the window, had opened it and looked out, until attacked by giddiness and sickness of the stomach, she had wished to retire from the window, but had sunk down unconscious in the attempt.

By remaining for some time after two o'clock, during a night in May, with the door and window open, whilst the efflorescence of scarlatina was on her, the draught had given

her such a cold, that it had receded, and had attacked the brain, in which, if not a considerable, at least a small and partial effusion (exudation) had taken place.

On account of the obstinacy of the disease, the immersions had to be repeated three times.

The efflorescence of the scarlet, which had re-appeared, lasted three days, after which the redness subsided gradually, and the desquamation commenced. During the former I ordered ablutions of 12° Reaumur (59° Fahrenheit), and during the time of desquamation, daily a full bath of 15° Reaumur (65 $\frac{3}{4}$ ° Fahrenheit), and on the ninth day, had the pleasure of meeting the patient in good health in the garden.

At the time of the scarlet epidemic, which visited Klosterneuburg in Lower Austria, and since 1841, since which time I have resided in the United States, I have applied the above treatment with upwards of a hundred children, more or less modified according to circumstances. Of all these patients, I have lost but one child of eight months old, in a family in New York; and who knows, if this one had died, if the over-anxious mother had followed my directions in my absence, and had not yielded to the advice of the prejudiced nurse. But instead of applying the cold ablutions of 8° Reaumur (50° Fahrenheit), which I had ordered every two hours, during the fever heat, until perspiration should ensue, the mother, afraid for her delicate little girl, used the warm baths (I do not know of what degree), which the nurse had recommended.

When formerly I treated the disease in a different way, I have lost sometimes more than half my patients.

SELF-POLLUTION.

Is a vice, which unfortunately is not unfrequently found both in boys and in girls; it enervates the body, destroys the capacities of the mind, and becomes the source of numerous maladies and sickness in after years.

The causes of this vice are, bad examples, immoral language, associating with badly brought up children, the wearing of too tight pantaloons, swinging or rocking, early riding on horseback, sitting cross-legged, &c.

The symptoms of the existence of this vice in either boy or girl, are: spots on the linen and bed clothes, blue rings around the eyes, sudden, pale color and emaciation of the body, the tottering uncertain walk, the dull dim look of the eye, frequent inclination to sleep, sudden fatigue, starting at trifles, trembling of the limbs, inclination to be alone, and with girls, when they sit cross-legged.

As soon as parents perceive that their child is given to this vice, or if they only have reasonable suspicion of it, they should immediately see, that his or her associates are changed, and that all existing causes are removed. The child should frequently be bathed, should take daily from three to four hip-baths, but if nothing will avail, some machine ought to be worn.

TYMPANY OR WIND-DROPSY.

A DISEASE which resembles wind or flatulent cholic in children, which arises either from the generation of a peculiar gas, from weakness in the intestines, or in consequence

of some other existing sickness, such as typhus, &c. In tympany, arising from some preceding or present sickness, the treatment should be regulated according to the character of that disease.

Tympany, which is not consequent upon some other disease, arises from weakness in the alimentary canal itself, generating a peculiar air, composed principally of carbonic acid and hydrogen gas, and forming a separate malady, which is fostered by a certain diet, such as fermented, windy, sour or over-sweet articles of food. This evil is easily recognized by the drum-like, much distended abdomen, which, when we tap upon it, sends forth a clear sound, without any rumbling, or pain, which distinguishes it from flatulent colic. It further differs from other complaints, principally from typhoid diseases, that the abdomen is not, as if divided, by a band in two halves, about the region of the navel, but that in Tympany it appears like one whole.

A regular diet, avoiding all windy articles of food and drink, washing the whole body, half-baths, frequently during the day wrapping the abdomen in wet cloths, four to eight cold injections, and repeated drinking of water, will soon remedy the evil and restore the patient to lasting health.

OVER-FEEDING OF CHILDREN.

THIS takes place, when the feeding by hand is not performed with that patience, circumspection, and proper choice of the articles of food, which the delicate organs of the children require. Generally this important business is entrusted to cross, unreflecting, young or old hired persons, who, although the child resists, cries, and screams, and kicks

with hands and feet, stuff the whole quantity which is intended for the child, at once down its throat. By so injudicious a feeding, the stomach is filled to such a degree, that it cannot digest, from one meal to the other, the quantity which it receives, causing repletion in the upper part of the alimentary canal, and giving rise to the following disease, which frequently becomes dangerous or tedious.

The child is peevish, much inclined to cry, shows no particular inclination to eat, frequently vomits after meals, the stool is indolent, it becomes bloated in the face, and the abdomen increases in size.

When the complaint has advanced to this point, it is time to make an alteration in the food and the manner of feeding the child, which ought to be such, as was pointed out under that head. Let food be given to the child only at fixed periods, and never more, than it will receive without resistance.

At the same time we should not neglect to bathe it a couple of times a day ; when there is costiveness, to give injections ; and when the lower part of the abdomen appears already distended, to make fomentations in front, which must be renewed whenever they begin to dry up. In this manner we shall not only check the progress of the evil, but the child will regain its former health.

WATER IN THE HEAD. (HYDROCEPHALUS.)

Most physicians divide this disease into the internal and external, the acute and the chronic, and adopt four varieties with the former, according to the seat of the complaint. It is congenital or constitutional with the child : the congenital being again divided into that which is devel-

oped at the birth of the child, and that where there is only inherited predisposition, which manifests itself later.

The voluminous angular form of the head, that of the fontanelles, the stupidity or imbecility of the child, are common characteristic symptoms, which announce the internal hydrocephalus. Besides these, there is in the beginning a disposition to vomit, to constant sleep, giddiness, pain and heaviness in the head. Notwithstanding the general emaciation of the body, the appetite increases, the walk becomes more uncertain and staggering, the senses more blunted, the faculty of vision decreases, the child is attacked by convulsions, the speech becomes inarticulate, the evaporation from the skin as well as the secretions and separations, with the exception of that of the saliva, are suppressed and interrupted.

These morbid symptoms which gradually increase, but too often, lead to entire imbecility, blindness, deafness and dumbness, whilst the extremities become cold, and the existence of the child is terminated by apoplexy.

Pure fresh air, simple nutritive food, and drinking plenty of water, staying in the open air, and plenty of exercise out of doors, daily perspirations in wet sheets, and subsequent cold ablutions, then baths, affusions over the head, fomentations over the same, and wearing of the ice-cap, I have found particularly efficacious.

Respecting the external hydrocephalus, we understand by it a larger or smaller tumor, which appears upon the external surface of the head, sometimes from a morbid state of the constitution, which is formed by a serous or lymphatic accumulation, between the membranes of the brain and the bones of the skull. This complaint is divided into partial and complete, the first generally occupies only a small portion of the head, and appears as a round, circumscribed tu-

mor, whilst the complete external hydrocephalus occupies, not only the entire hairy scalp, but also, frequently the neck and the forehead. The latter, according to its exudation, is also divided into the cellular, the aponeurotic and periostic external hydrocephalus. The division however has no essential influence upon the treatment of the disease. The external hydrocephalus is distinguished from the internal, when on pressing with the fingers, we distinctly feel the bones at the bottom of the tumor, if it is not connected with the internal one by some fontanelle or suture. If at the same time the sick child is free in its motions, if, when screaming, it can breathe freely, if by a quick motion, such as rocking or dancing, it does not become stunned, it is a pure external hydrocephalus. Hydrocephalus, particularly the external local, may be mistaken for the rupture of the brain swelling of the brain and the watery rupture of the brain, if we do not pay attention to the following characteristic symptoms.

The child which is afflicted with rupture of the brain, swelling of the brain and watery rupture of the brain, cries very seldom, only loses its breath in severe cold, or when the head is bent forward, but not from any other irritation. When the bending forward is done very rapidly, it becomes alarmed, and death sometimes is the consequence. Every pressure, applied to the tumor, causes convulsive paroxisms, and, like the sudden bending forward, may prove fatal.

WORM-DISEASE.

Is a disease, which occupies the attention of physicians to a great extent, as scarcely an individual remains free from its effect during the age of childhood. It arises from the morbid disturbance in the alimentary canal and the formation of several kinds of worms, consequent thereupon.

The different inhabitants of the alimentary canal, are divided into four species, namely; the *ascaris lumbricoïdes*; (the large round worm) the *ascaris vermicularis*, among which we also reckon the *oxyurus vermicularis* (the maw or thread worm); the *trichocephalus* (the long thread-worm), and the *tænia*, (the tape-worm), which by some is again divided into the *tænia solium* (the long tape-worm) and the *tænia lata* (the broad tape-worm). The treatment of the tape-worm has already been fully discussed.

THE *ASCARIS LUMBRICOÏDES* has a round body, from six to fifteen inches in length, and from two to three lines in diameter, not unlike a quill, and much like the earth-worm, it is of an opaque, pink color, and gets thinner at both ends, less at the tail-end, than towards the head. At the head, there is an indentation, on which there are three valves. The body appears grooved on both sides. Their common abode is in the small intestines, although they have often been found in the stomach and the œsophagus.

THE *OSCARIS VERMICULARIS*, which are also called thread-worms, from the resemblance to bits or ends of thread, are very quick in their motion, are found in the colon, the rectum, and are the tormenting companions of children. This worm is from one and a half to five lines in length, the head is blunt, puffed, and perforated by a tube, and the tail terminates so gradually that the point is scarcely perceptible.

The cause of worms, is constitutional or acquired weakness of the alimentary canal, bad, indigestible food, damp dwellings, and bad air, producing disproportion between the power of assimilation of the digestive organs, and the food introduced. In consequence of this, part of the food remains behind in the folds of the intestines, ferments there, and thus generates worms, or midges, which after they come to perfection propagate their species by laying eggs.

The phenomena, presented by the derangement in the alimentary canal, differ much according to the kind, condition, number and seat of the worms; the following symptoms, however, will justify the conclusion that worms exist in the intestines :

Bloated, leaden colored countenance, dull eyes, and enlarged pupilla, and blue rings round the eye. Itching in the nose, much sneezing, lost appetite, bad breath, nausea of the stomach, inclination to vomit, real retching, much discharge of saliva, a truly morbid appetite, gnashing with the teeth, spasms, convulsive paroxysms, trembling, whey-like urine, itching at the rectum, &c.

A regular nourishing diet, pure air, and much exercise out of doors, frequent washing, bathing, affusions, wearing of wet fomentations around the lower part of the abdomen, half and whole injections, and frequent drinking of cold spring and hydrant water, in the same manner as used for the tape-worm, always produce the best effect.

WOUNDS.

THESE are divided into thrust, cut, and shot wounds, wounds from a bite and contusions, which again are subdivided according to the instruments, with which they have been inflicted, the depth, to which they have penetrated, and the part of the body which has been injured. When the separation of the parts is such, that it is necessary to bring them together by a bloody suture or some other technical operation; when one of the more important parts is injured, when an artery or a sinew, &c., has been severed, when balls, shot, parts of the clothing or other foreign bodies are in the wounds, surgical assistance should be immediately procured.

But, until this assistance can be obtained, the wounded part should be placed in a vessel filled with cold, if possible, ice-water; this water should be changed as soon as it begins to get luke-warm, or mixed with much blood. In this water the limb should remain, until the bleeding is stanch'd. If however, the injured part cannot well be got into a vessel with cold water, then cold fomentations, with cloths, four or eight fold, should be applied, which must be wrung but very slightly, must remain without dry coverings, and be exchanged, at least, once every ten or fifteen minutes for fresh ones, which are to be kept in readiness.

When the bleeding is violent, and caused by an injury, of one of the arterial vessels, by which the person is in danger of bleeding to death, or of being severely injured, before a physician can arrive, we should not hesitate to interfere, by compressing the wound firmly with the hand, the thumb, or an instrument, for instance, the key of a door, round the

handle of which, some linen has been wrapped, and which is pressed tightly, one or two inches, above the wound, until assistance arrives. If this can be done with the thumb or some other finger, it should be applied on the very spot, from which the blood escapes.

If the dangerous bleeding is from an artery, either of the upper or lower limbs, for instance, the femoral artery, and we cannot stop it in the manner described above, we then take a diapered bandage, one and a half to two inches in breadth, place it loosely three or four fingers' breadth above the wound, around the hand or the foot, and on the spot under which the blood-vessel is flowing, we place inside of the bandage a pad, folded together several times, and on the opposite of the knot which ties the bandage, we introduce a solid stick, and twist it round its axis until the bleeding stops. We now hold it in that position until surgical aid arrives.

When the injury is too near the end of the vessel, as, for instance, at the upper brachial artery, at its exit from the axilla (arm-pit), or at the axillary artery itself, the pressure should be applied in the before described manner, above and behind the collar-bone. When the injury is high up on the femoral artery, the pressure is to be applied to the middle of the os pubis.

When the bleeding has been arrested, the foreign bodies have been removed from the wound, and the edges of the wound have been brought together, the part should be washed clean, and the patient be brought to bed, with the injured limb, in a proper position. Over the wounded part, a single linen rag, which has been steeped in cold water, is placed, and over this the above described fomentations, rather more wrung, to be changed as soon as they lose their coolness, which will take place at least every fifteen to

twenty minutes. If the inflammation, that is to say, the pain, the heat, the redness, and the swelling diminish, let the fomentations be gradually wrung more, and be applied less often; if a pricking and itching takes the place of the pain, let the fomentations remain upon it, until they begin to dry up. In those cases, in which suppuration takes place, particularly with wounds caused by a shot or a bite, as soon as the inflammation terminates in suppuration, substitute tepid fomentations of 15° to 18° Reaumur ($65\frac{3}{4}^{\circ}$ to $72\frac{1}{2}^{\circ}$ Fahrenheit), for cold ones, and change them likewise as soon as they begin to dry up, which treatment, together with a regular diet, must be persevered in until perfect cicatrization and reduction of the swelling.

This treatment, which I have used during twenty-two years of practice, as well in hospitals as in private families, with numerous wounds of all kinds, and even with amputations, has convinced, both me and hundreds of persons, who have been healed, that not only wounds of every kind, can be healed quickest without salves, plasters, balsam or other medicaments, by the sole application of water, but also that this method of healing, leaves behind the least perceptible scars.* By the treatment with water, all excessive suppuration, caries, mortification, and paroxysms of fever are prevented, and the strength of the patient sustained sufficiently to keep up the reaction, by making the wounded person, according to the degree of the existing fever and inflammation, take half or whole baths, every day wash once or several

* I cannot refrain here, from expressing a wish, that the treasury, as well as the administrators of civil hospitals, would convince themselves, that all sorts of wounds heal quicker, better, and more beautifully without any medicine. How much money would be saved in this manner, particularly in time of war, which might be applied to other benevolent objects.

times the whole body, or having him wrapped up in wet sheets, whilst he drinks cold water, and when constipation occurs, giving injections.

THE CHAFING OF INFANTS. (INTER-TRIGO.)

A COMPLAINT which occurs particularly, with fat, well-nursed children, which degenerates as often as it can be the effect of internal acrimony of the infant, of bad milk of the mother, of bad food, of damp dwellings and uncleanness. The chafing appears most commonly on the two inner sides of the thighs, of the private parts; also in the creases of the breech, on the knee joint, and even under the arms, at the elbow joints, behind the ears, under the chin, and in the creases of the neck; and by its itching, annoys the child excessively, preventing it from sleeping. The child consequently gets really sick, cries incessantly, and is always uneasy. Chafing does not unfrequently degenerate by its spreading, and by pustules forming round its exterior margin. These exude a purulent fluid, and dry up to a crust, under which matter collects, which becomes the cause of ulcers.

Frequent bathing of the child, at least once or twice a day, in tepid water of 20° to 22° Reaumur (77° to $81\frac{1}{2}^{\circ}$ Fahrenheit), frequent washing of the sore parts with bran-water or milk, and when the chafing is not very extensive, a moderate application of hair powder, will be of use. In cases, where the excoriation of the skin has already taken place, where the parts are inflamed, and the skin is tense, sweet cream should be used instead of powder, and the sore part be covered with it, over which a single fine rag, which has before been dipped in fresh water is put, which, whilst the washing and the baths are continued is repeated as often as

the rags become dry. In this manner the chafed parts will soon heal, if otherwise the milk of the mother or the food of the child is good, and if it breathes a wholesome air, and the tortures of the child will terminate rapidly and safely.

THE WHITES. (FLUOR-ALBUS.)

By the general appellation of the whites, we understand every increased abnormal secretion of mucus from the vagina and the womb, of the mucus membrane of the external parts of generation, and of the urethra.

Respecting the classification of the disease, which differs according to the quantity and quality of the discharge, to its cause and course, I shall reserve further details for the proper place, and mention here only those kinds, which occur most commonly before or during the puberty of the female, these are: that which arises from mechanical irritation, self-indulgence or worms; secondly, that, arising from constitutional or adynamic causes, for instance, from inherited, congenital or acquired diseases, such as scrofula, rickets, syphilis; thirdly, after scarlet, miliary, catarrh and rheumatic fevers, gout, &c., and fourthly, that, from suppressed menstruation, at the commencement of puberty. It occurs most frequently after the commencement of purberty, and mostly with women,* but it has also been observed at every age, before the commencement of the menses, and even with new-born infants.

The discharge, which has arisen from mechanical irritation, and from consequent evacuation, and after scarlet-fever, is always of an innoxious character, and when the cause, for

* More of this in my Botanical practice.

instance, the mechanical irritation, &c., is removed, under a well regulated diet and by proper conduct, disappears very rapidly. But with weakly persons and under improper treatment it may easily degenerate into a cronic malignant discharge. On the contrary, the fluor albus, the cause of which lies in some inherited, congenital or acquired disease, as well as that, which arises from the non-appearance of the menstruation, always indicates a habitual weakness, the suppression of which, requires a longer time, as we have not only to do with the mucous discharge, but in the former cases, with the removal of the primary morbid cause. Where the non-appearance of the menses, is the source of the evil, the first cause is a bad preparation of the blood and consequent indolence in the circulation, particularly in the female genitals, as also an abnormal activity in the mucous vessels. It is therefore, above all things necessary, to increase the activity of the circulation in those parts, and thus to restore the equilibrium between it and the mucous vessels; when this succeeds, the appearance of the menses, will be the result, and the health of the patient will be restored. The consequences, which in the course of time may result from the neglect of a similar fluor albus, are: a pale, bloated look, weakness of digestion, hardness of the abdomen, when touched, particularly over the pubes, emaciation of the whole body, weakness of body and mind, diseases of the lungs, and the abdomen, hectic fever (wasting fever) and death.

As to the treatment of the whites, this is generally and particularly to be regulated, according to the above described four principal varieties, at the same time, taking into consideration the age and bodily strength of the individual. A regulated diet, constituted of simple food, of milk and fruit, prepared without any spices, avoiding, all fat victuals and meat, a pure air, cleanliness of the body and its clothing,

much exercise, particularly climbing mountains, and frequently drinking hydrant-water form the principal features of the treatment.

Instead of entering specially into the description of these different varieties, I take the liberty of giving here the history of four cases to make it more intelligible to the layman.

HISTORY OF A FLUOR ALBUS, PRODUCED BY MECHANICAL IRRITATION, THAT IS, BY SELF-POLLUTION.

JULIA N——, eleven years of age, was, by the bad example of thoughtless, rather elder, companions, for want of proper education, led to commit self-indulgence; the parents suspecting nothing, and only troubled at the looks of the child, which was growing worse, and the cause of which they attributed to chlorosis, at last asked my advice.

I found the child a well grown, fair haired girl, of a very lively character, pale, her eyes sunk, and deep blue rings around them; the eye was dull, the lips pale, the whole figure emaciated, and the lower part of the abdomen, above the lap, was tense; the girl had a good appetite, was however silent, occupied with herself, and generally sought solitude. Besides this, I could learn nothing from her, but that she often felt considerable pain when making water.

I therefore requested the mother to observe her daughter, according to my directions, and learned in a few days, that the chemise and the sheet were covered with mucus, which, as she pretended, she had, of late, frequently discharged involuntarily. The mother had also observed that the daughter was in the habit of crossing her legs and moving her feet to and fro, also that she rubbed her hands against the private parts. After this, the mother, at my request, examined the girl, and the external parts of the pudenda

were found inflamed, and surrounded with a glutinous mucus.

The existence of leucorrhœa from the vagina, in consequence of irritation, could no longer be doubted, as the mother had caught her in the act, and as she had consequently confessed all. After this time, when the girl was more closely observed, it was found that particularly in the evening, much mucus was discharged from the vagina.

The mother now forbid her associating with the same companions, did not lose sight of the girl, and even slept with her, not neglecting to explain to her the dreadful consequences of this vice.

By the strict conduct of the mother, the self-pollution was prevented, the exciting cause of the frequent leucorrhœa removed, and the consequent chlorosis checked in its progress. By this means, and by frequent exercise in the fresh air, an active life in the house, where, exercising her muscular power, the little girl did not find time to think of such abomination, as self-pollution; further, by living upon nourishing, spiceless food, the avoiding of coffee, tea, and all spirituous liquors, by drinking frequently cold hydrant water, and by taking a salt water bath, four times a day, of 18° Reaumur ($72\frac{1}{2}^{\circ}$ Fahrenheit), and of fifteen minutes duration, during which the abdomen was rubbed, the discharge was soon checked, and with it disappeared the chlorosis, so that six weeks after, the little girl looked as well and as fresh as ever.

CHLOROSIS FROM SYPHILIS.

ONE day, four years ago, a single woman came to me with tears and lamentations, and told me that she was diseased about the genitals. After examination, I found on the one side of the labia majora, and on the two labia minora (the nymphæ), five venereal ulcers, together with a malignant leucorrhœa from the vagina; which, as she said, she would not mind, if her child did not suffer in the same parts, a similar discharge taking place from the vagina of the child many times in twenty-four hours and that, in reality, she had come to ask my advice for the child.

After this, I told her to show me the child, and found a little child, of scarcely six months old, very weak, bloated in the face, pale, with a large and hard abdomen; the limbs emaciated, the skin like parchment; the external parts of the pudenda, a bluish white, and covered with a mucus, resembling starch, which, where it was flowing down, had excoriated the thighs.

After having submitted the mother to a severe treatment, I ordered the child to be weaned entirely, to be fed upon a nourishing milk and flour diet, to wear night and day damp fomentations, consisting of four-fold linen rags, which had been steeped in water of 21° Reaumur (79½° Fahrenheit), and had been well wrung out; these were changed as often as they began to dry up. At the same time, pads, less thick, were placed upon the privates and the sore parts of the thighs. Besides this the child, after having been well washed in water of 20° Reaumur (77° Fahrenheit), was wrapped, dripping wet, in dry, linen cloths, was covered with bed clothes, made to perspire, and afterwards placed in a bath of the same tem-

perature, after which it was dried, and the fomentations applied. It was now wrapped up well in its bed, carried into the fresh air, it being summer, and very warm, and had frequently to drink cold water.

After the expiration of twenty-four days, the discharge had disappeared, from which time forward, the looks of the child improved so much, that in the sixth week it was sound and well.

CHLOROSIS AFTER SCARLET FEVER.

A daughter of Joseph Kraft, fifteen years of age, was attacked by scarlet fever, when it was prevailing as an epidemic. She got safely over the fever, in which I treated her, but during the period of its desquamation, I was obliged to leave home on family affairs, and did not see her again until a fortnight later, when her mother came to meet me, with the exclamation, that her daughter was very sick, as, besides being much swelled, she suffered at the same time from chlorosis and fluor albus. The otherwise blooming girl, was as white as a sheet in the face, looked bloated, the lips and gums white, the abdomen considerably swollen, tense, and particularly hard towards the lower part; the lower limbs, especially the feet, much swollen, the appetite lost, digestion very bad, the skin dry and yellowish, and feeling hot, principally towards evening, the stool watery, the urine very rare, sparing, and reddish; at the same time a frequent discharge of a whey-like slimy fluid, from the vagina, which, several times a-day, was followed by small lumps of greater consistency and salty.

According to all these symptoms, the cause of the whole sickness was here, a receding of the disease during the period of desquamation, throwing the morbid power upon the abdo-

men; that is to say, upon the glandulary system, and sympathetically producing that discharge of mucus, from the genitals.

After the patient had been rapidly washed in water of 20° Reaumur (77° Fahrenheit), I had her well wrapped up twice a day, in a linen sheet, which had been steeped in water of 10° Reaumur (54½° Fahrenheit), and been well wrung, and allowed her to sweat in it: the first day, each time, half an hour, the second day a whole hour, and the third day two hours, after which, she was every time rubbed with water of 15° Reaumur (65¾° Fahrenheit), which besides this, had to be done to the feet twice a-day, when they were wrapped up dry and carefully. Over the belly a damp fomentation of pads, dipped in water of 10° Reaumur (54½° Fahrenheit), was put, whilst the genitals were well washed, and the patient was obliged to drink much cold water. We did not forget to ventilate the room frequently, and for the first few days allowed the patient no other food but milk.

Already after the fourth day, desquamation occurred, and in proportion as this advanced, the discharge decreased, wherefore on the fifth and sixth day of the treatment, I let the patient sweat only twice a day, each time an hour; on the seventh and eighth, only once, and on the ninth, allowed her to discontinue it altogether. Whilst her food was nutritious, she was obliged to walk a great deal about the room, and only the ablutions and fomentations were continued; on the twelfth day, the patient was allowed to put aside these also, and on the same day she went for the first time into the fresh air. From this time she was for the next eight days, every morning, immediately after rising, washed with water, out of which the chill had merely been taken, and rubbed with it. After which time the swelling and discharge disappeared, and the girl was in good health, which showed itself in the return of her wholesome color.

DROPSY.

BESIDES the dropsy in the head, of which we have already treated, we have dropsy of the spine, of the chest, of the pericardium (a membrane surrounding the heart), of the abdomen, the so-called ascites, of the womb, of the ovaria, and general dropsy (anasarca).

Dropsy with children, in my opinion, may be congenital or inherited, in consequence of the morbid formation or changed condition of some organ, as for instance, the liver, spleen, mesenterium, or it may be acquired, which I have found, particularly after eruptions, such as scarlet and miliary fever, in which case, it was either abdominal or general dropsy. These latter cases were always safely cured, in the former cases, however, only temporary relief was obtained by appropriate diet, pure air, exercise and frequent wet friction, or washing of the whole body.

The dropsy of the abdomen, which together with general dropsy, I have had most frequently opportunities of observing in children, may in general be divided into chronic dropsy, consequent upon the morbid formation or change of some internal organ, and in the acute or rapidly progressing dropsy; and as the latter is exactly the one, which occurs most commonly with children, and in which, when timely assistance is afforded, this treatment shows itself in brilliant colors, I cannot omit to speak of it here.

ABDOMINAL DROPSY.

By this we understand several varieties of accumulation of water in the abdomen, in which the effused fluid, is free in the bag of the peritonæum (the lining membrane of the abdomen) and washes round the intestines, which it invests or contains.

A second variety is that, when the water is enclosed by itself in smaller or larger bags or skins, called sacs, which are free in the cavity of the abdomen, or where these bags or skins by means of a long and narrow base, are seated in the parenchyma attached before, or to some one of the intestines, as the liver, &c., being the result of some former increased co-agulation of the organ, which in consequence of an acute state, had been overcharged with blood and lymph. The number of these bags, as well as their form and size differ. A similar but rarer variety of dropsy is that, in which the two layers of the peritonæum seem to be separated by a watery effusion, this, as well as the other is called hydrodystis or encystec dropsy. Besides these two kinds, of which the first mostly occurs with children, there are many other varieties, the explanation of which, as they generally occur only with adults, I reserve for a more appropriate place.

The abdominal dropsy arises generally symptomatically from secondary causes, for instance, after intermittent fevers, eruptions of the skin, liver-complaints, diseases of the spleen after inflammation of the walls of the abdomen and intestines. When primary, it is mostly a symptomatic phenomenon, and with grown people, often appears as a chronic disease, with debilitated organs of digestion, and diminished vitality.

This disease is always of easy recognition, as it manifests itself in a uniform extensive swelling of the abdomen, the characteristic of which, is, either a tense or elastic, soft, flabby swelling, which yields in every part to pressure, rises again when the finger or the hand is removed, and which can be plainly felt, by the undulating motion of the existing water, when, placing one hand against one side of the abdomen, we beat with the other against the other side.

General dropsy or dropsy of the skin, is a collection of a watery, serous, lymphatic fluid, existing over the whole extent of the cellular tissue, under the external skin, as well as between the muscles which penetrates even to the parenchyma, and mostly arises from diseases of the heart, of the lungs and of the kidneys. But like the abdominal dropsy, it may arise from the bite of a serpent, and is therefore always a secondary disease, and in consequence of a checked impaired or deficient preparation of the blood, as, for instance, an interrupted return of the blood to the left half of the heart, &c.

The more the accumulation of water in the body increases, the more the soft parts become relaxed, they become softer and shrink more and more; digestion and strength, as well as the activity of all the functions of the body, diminish, the body becomes emaciated, the skin more liable to chap and colder, the tongue dry, the urine is discharged sparingly, with a peculiar ammoniac smell, in the last stage it being covered with a skin, the colors of which are changing, the stool also becomes rare, and for the most part greenish or blackish, the functions of the body sink, until at last they cease entirely; in ordinary cases the lungs become paralyzed and the patient dies.

As to the treatment of chronic dropsy, it has already been

stated, how it should be commenced, and that it can never act otherwise, than palliatively.

As to dropsy, arising from suppressed or scanty menstruation or in consequence of the bite of a serpent, the treatment described in the last history of disease, may serve for the former, and that under the head of "bite of a serpent" for the latter. Of the treatment of dropsy, in consequence of suppressed desquamation in the third period of the scarlet fever, a complete description is to be found in the history of the third case of scarlet fever.

As well generally, as particularly, the manner of treatment must always tend, if we cannot increase the strength of the patient, at least to sustain it, to augment the activity of the skin, and by means of perspiration, or of frequent voiding of urine, to bring on a crisis, which, by the discharge of the morbidly effused fluid, from the organs affected, leaves these latter in such a state as generally to become again enabled to execute uninterruptedly the separate functions which nature has imposed upon them, and together with the gradually increasing vital energy, expel this very production from the body, and thus to restore it again to health. Here we should first consider the strength of the individual, and regulate the diet accordingly, namely, simple, natural and nutritive. Good milk, not too rich, some wheaten bread, good soup with rice, sago and the like, roasted or stewed meat, particularly game, when given in small quantities at a time, several times a day, together with a sufficient quantity of cold water, a healthy, pure air and appropriate temperature from 10° to 16° Reaumur ($54\frac{1}{2}$ to 68° Fahrenheit), seldom fail to effect this object, especially when the nature of the patient is properly assisted by perspiring in wet linen sheets, preceded by dry friction of the whole body, with flannel or hair-gloves, during several

minutes; after the perspiration, again rubbing, first with a wet sheet around the whole body, and then friction with dry cloths, until the whole surface of the body has become red. According to circumstances this should be repeated once or twice a day, the duration of the application always depending upon the progress which the malady has made, and upon the strength of the patient.

THE BITE OF A SERPENT.

ON the 10th of July 1840, the only child of Mrs. Josepha Mink, store-keeper, in Neustadt, a boy of thirteen years of age, when picking strawberries in a forest, was bitten by an adder, and afterwards found unconscious in a ditch by some person. His mother was notified of this, who did not hesitate to bring him to me to the Institution. They said, that two hours had elapsed since the bite had been inflicted.

The boy looked very pale and suffering, his limbs hanging relaxed, with constant inclination to vomit, and real vomiting of a fluid resembling water, falling every moment into a state of unconsciousness.

I found the right foot wounded, by a double bite below the ankle, and on the first joint of the toe, and the foot swelled œdematously, already a hand-breadth over the articulation of the heel.

I immediately ordered a foot-bath to be made for the patient over the ankles, in which each of the parts bitten were scarified, as many as sixteen times, and after the scarification he was obliged to remain in the water half an hour longer, whilst it was changed every two minutes. After the wounded part had been covered by a fomenting cloth, and the leg, up to the knee, enveloped in wet cloths, the patient was put to bed

Both the fomentation and the enveloping were changed every quarter of an hour, and the foot-bath repeated every two hours, whilst the boy was obliged to drink as much water as he could swallow:

After a very uneasy night, in which the patient wandered much, and frequently vomited pure water, the whole leg, up to the hip, appeared much swelled. I now prescribed that the child should sweat twice a day, each time two hours, whilst the whole limb was wrapped up in wet rags, that all, that had been ordered before, should be continued, and that after the sweating, the boy should wash in cold water. Although on the third day after the bite, the swelling had considerably abated, the vomiting had ceased, and the boy was well, I continued, notwithstanding, all the applications until the fifth day, and on the sixth day, the 16th July, I had the pleasure of seeing him walk about as well as ever.

DIFFICULT TEETHING.

MANY authors have written on the subject of difficult teething, frequently contradicting each other directly, as to the development and the cause of the accompanying diseases, and in direct opposition with the laws of physiology and of nature, respecting their ætiology and exciting cause.*

Difficult teething, properly speaking is no disease, but a

* The reader may compare the writings of Calenis Coment 1519. Wichmann's 2d Vol; Blumenthal on the Ætiology of teething, 1 vol. Boerhave, Aphor. Jardain 2 Vol. 5. 544. Burdet 2d Vol. § 10. P. 35. Bertin 2 Part. § 159. Van Swieten in several treatises. Armstrong, translated by Schœffer; Schœffer's, diseases of Children, Bell, 2d Vol. § 159. Starks 2d. Vol. Harvis on acute diseases of children.—P. 34. Bernstein's Manual, 1 Vol. Henke's diseases of Children, 5 Vol. 225. Hufeland and others.

natural process,* and an all-wise Providence has placed no more obstacles in the way of its development, than in that of any other, belonging to the human body, but on the contrary, has made provisions for the formation of the teeth to be gradual, without the necessity of any excessive effort, at the expense of the health of the child. The more or less increased activity or irritability depends entirely upon the state of the health, upon the strength, disposition to disease, condition in life, milk of the mother, &c., and can no more be attributed to the teeth themselves, than to the phenomena of the diseases which frequently appear at the same time, but which have no connection with the teeth whatever. They are of the same duration as dentition, but occur frequently, as we see every day, independently of this process, and perhaps more frequently. Dentition takes place in the country, but particularly in mountainous parts, where the inhabitants are still strangers to effeminacy, and where nature still appears in her simple garb, without any morbid phenomena, frequently, without being perceived by parents or attendants until the first tooth has been cut.

We cannot therefore possibly attribute the after-mentioned phenomena, and forms of sickness to the cutting of the teeth, as there is ætiologically and physiologically no connection between them, as every one of these after-diseases are in direct contradiction to the anatomical construction of the sockets, and gums of the teeth, at the age of infancy, and as no constant morbid phenomena are perceptible on any of the parts which come in immediate contact with dentition. Should we, for instance, during this period, explain the redness or swelling of the gums, as a morbid phenome-

* Vide Wichmann's Diagnostic 2. Vol. and Sternberg's doubts as to the difficult teething of Children, 1 Vol. Hippocrates Aphorisms, Sec. iii. P. 25, Celsus ii. Vol. P. 46 : Mercurialis P. 312, Kuster P. 417.

non? By no means; for is it not a natural consequence, that as soon as the crown of the tooth protrudes more or less, out of the socket, and approaches nearer to the gum, which covers it, that the latter should rise, increase in bulk, and also project over the still empty spaces over the sockets in the jaw? Nor can the redness, which appears in that part of the gum, in consequence of the increased activity in the blood-vessels, be in any way looked upon, as a morbid phenomenon, but merely as one, which is physiologically necessary, as well as the whole process. The increased salivation or dribbling of children, so common at this period, cannot either be looked upon as a precursor, or consequence of a difficult cutting of the teeth, for this is only the effect of the progressing development of the glandular system in general, and particularly in the mouth, which takes place about the same time, and of the increasing activity in these parts, producing a greater secretion until properly equalized.

Diarrhœa, which used to be looked upon as a necessary consequence of dentition, occurs just as much, before, during as after it, and still more frequently dentition runs its course without its appearance.

The cause of this diarrhœa, lies, therefore, by no means, in dentition; nor is it correct that teething, when accompanied by diarrhœa, terminates more easily; no, not more easily, but more weakly and slowly, because every diarrhœa interrupts the digestion more or less, carries off a certain quantity of juices, necessary for the support of the body, in consequence of which, the child loses in strength, and thereby in capacity, and the gradual progress of dentition, proportioned by nature to the organic condition, is arrested. In the same manner as diarrhœa is injurious during this period, so does also constipation, which arises from dietetic errors, and which interrupts the natural process of nutrition,

interfere with dentition. Both the cause of diarrhœa and of constipation, is undoubtedly to be found in the instinct for food, which arises about this time, and in the weakness of the parents and others, who allow the child every thing at an improper time.

Fever, cough, cold in the head, vomiting, sudden starting, when awake or asleep, convulsions, spasms, &c., continued to be ascribed to the teeth, without considering that there is no analogy or connection between them; that they appear suddenly, before, during, and after the period of dentition, under the same type and form, and disappear just as suddenly, and that dentition also is accomplished, without them.

On the one side, physicians have tried to prove by a series of errors, that the enumerated forms of diseases, and many deaths, were the consequence of dentition; and on the other, they have exerted themselves to the utmost, to sustain a preconceived notion, and to prove by gratuitous suppositions, which always rested upon a false foundation, and which physiologically, anatomically, and pathalogically, contradict each other, that not only difficult dentition exists as a disease, the cause of which is to be found in some disproportion or other of the jaw, the gums, or the tooth; but that this disease is called forth, by the wedging in of the tooth in the socket of the jaw, from which it has to work its way up, and by the irritation, &c., which in its progress of cutting, it exercises upon the gums, stretched over the socket, also by the dragging of the nerve. This belief has gained ground with the mass of the people, who are but too ready to form an attachment for old customs and prejudices, notwithstanding so many contradictions and opposite assertions, and thus this idea, which existed at the time of Galenus, more than a thousand years ago, has maintained itself, not only, among the people, but even

among the greater number of physicians, to the present hour, in spite of all experience and refutation.

Although we cannot deny the omnipotence and wisdom, with which the human body is formed, nor the permanent order and succession in which the phenomena of the development of this body, from the first germ to the perfect formation of man, occur, if not violently interfered with, by the external world, yet we must admit that during the tender age of infancy, some developments progress more rapidly in certain individuals than in others. But for all this the beauty and harmony of the organization of the child is such, that dentition can proceed without any sickness or without any external influences, though the feelings may differ according to the temperament, the sensitiveness, the strength or weakness of the body.

In spite of all prejudices, every observer must admit, that the majority of children, particularly those of healthy parents, with pure air, bodily cleanliness, proper diet, and a hardy manner of living, pass the period of dentition without any phenomena of sickness, and also, that those, who during the period are attacked by other diseases, or carried off by death, were seldom without some defect or morbid disposition to sickness. Dentition, therefore, cannot be looked upon as a disease, but as a process intended by the laws of nature.

This natural process, namely, dentition, is divided into two periods. The first occurs, when the tooth commences to swell in the sac, drives the upper part of the gum up, and thus forms an elevation upon its surface. The second occurs, when the covering part of the gum bursts, and the crown of the tooth grows more into sight.

Cleanliness of the body, healthy milk, or other proper diet, the enjoyment of pure, fresh air, early hardening of the body, by washing and bathing of the child, first with

tepid, and later, with quite cold water, make teething so easy, that we can scarcely ever perceive an interruption in the health of the child.

If, in consequence of its irritability, the development proceeds too fast, and the child becomes uneasy, or on account of increased sensitiveness, it cannot sleep, or the skin becomes hot, &c., it should be well washed several times, over the whole body, with cold water, be wrapped up wet, in a dry linen sheet, and then put into bed.

If, within a few hours, after this, the phenomena that is the too great reaction, caused by the cutting of the tooth, and by the excitability of the child, does not diminish, it should be enveloped in wet rags, which must be changed every hour or every two hours until the violent phenomena cease, which always takes place within a short period.

If other accidents, such as fever, diarrhœa, vomiting, convulsions, spasms, &c., concur, they should be treated according to the rules laid down under these different heads, not neglecting, when there is determination of much heat to the head, to apply cold fomentations.

FINAL REMARKS.

I SHALL now take the liberty to observe, that this work has not been written from any interested motive, that I do not rely entirely upon hydropathic treatment, or that I want to maintain, that we can altogether dispense with medicines; exactly the contrary is the case, and the work, which I shall shortly publish, will give a convincing proof of my assertion.

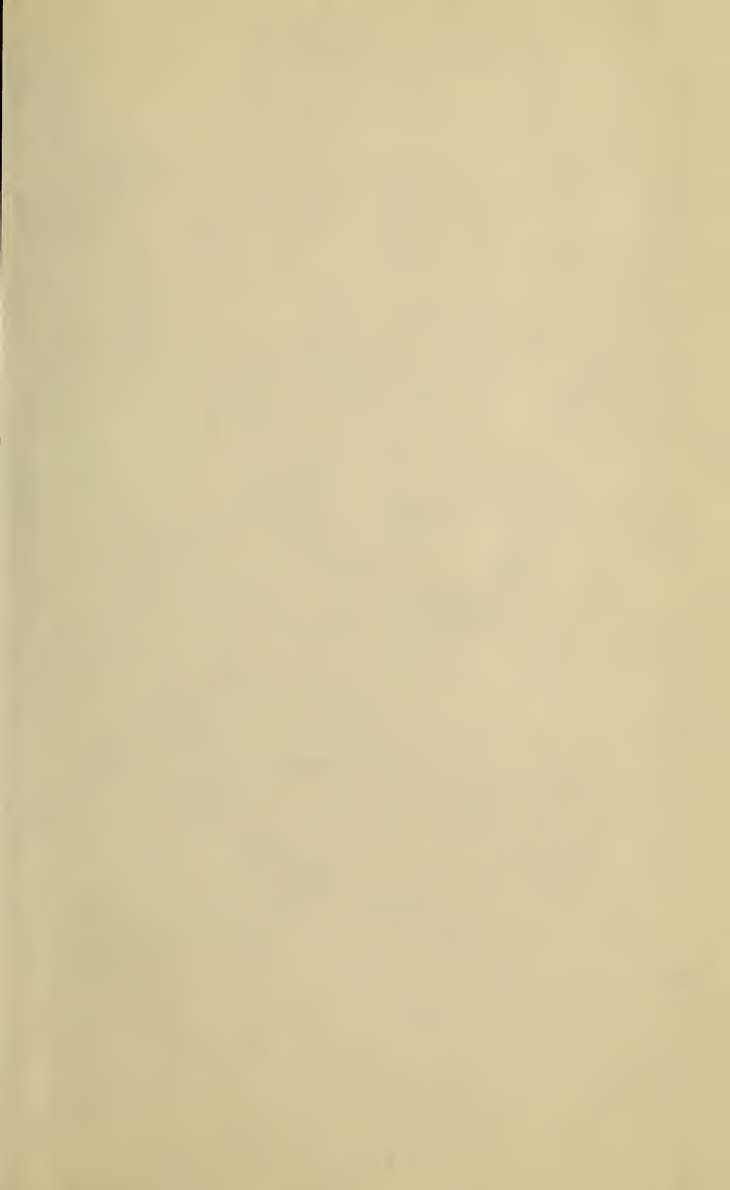
The principal reason which induced me to publish this work, is the necessity, which is felt for it by many physicians, but particularly by families in self-treatment, as both the fair-

sex and the delicate child suffer but too much from the taking of medicines. The United States are full of Quacks, who assume the name of doctor, who laud their own nostrums to the skies, and sell an incredible quantity of them to the masses, who do not know who manufactures them, and what injury they may do to the delicate constitution of a child. These quack medicines are pretended to cure all the diseases under heaven, and yet there are physicians who recommend them, a thing most incomprehensible. Better for a medical man, when he finds his knowledge insufficient to prescribe further for a patient, to admit the fact candidly, than to prescribe these nostrums, the ingredients of which he does not know, relying solely upon the fabulous descriptions of the venders.

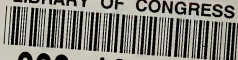
I hope that physicians, who make use of them, will begin to think for themselves, and see that their conduct must injuriously affect themselves, and their reputation.

Altogether I should think that every reflecting human being, who has daily an opportunity of witnessing the baneful consequences of such medicines, would rather take no medicine at all, than that, of which he knows neither the maker, nor the component parts, and which, principally with delicate children, are not only useless, but invariably produce injurious consequences.*

* The author is ready to prove authentically, the valdity and truth of the histories of disease, which have been related in this work, and in all anal gous cases to give a test of the practicability of his treatment at his own dwelling, or at any other convenient place.



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